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One Economy Digital Communities: Transforming Lives for Low-Income Americans in San Jose and Miami

Authors
Vera Michalchik, Sara Carriere, Deborah Kim Emery, Larry Gallagher, Ann House, Andres Molina, Lynne Peck Theis, William R. Penuel
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Commissioned by
Julie E. Tarr, Ph.D., Director of Evaluation, *tarr@knightfdn.org*
John S. and James L. Knight Foundation

Abstract

The overall objective of this evaluation of One Economy's Digital Communities program is to examine the impact that having a computer with Internet access at home has on peoples' lives. The evaluation has sought to measure and describe how the program has influenced attitudes and behaviors that can lead to improved economic and social outcomes for low-income families through the strategic use of technology. From this examination, One Economy can assess the program effects in ways that will contribute to its further efforts to improve the lives of low-income individuals and communities through strategic use of technology.

Knight Communities Included

Miami, Fla., and San Jose, Calif.

CENTER FOR TECHNOLOGY IN LEARNING

One Economy Digital Communities: Transforming Lives for Low-Income Americans in San Jose and Miami

Prepared by:
Vera Michalchik
Sara Carriere
Deborah Kim Emery
Larry Gallagher
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Lynne Peck Theis
William R. Penuel

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Executive Summary

Our evaluation of the One Economy Digital Communities program in San Jose, California, and Miami, Florida has focused on analyzing the effectiveness of the program in its efforts to:

- Provide families with home access to useful and relevant Internet content that assists them in taking steps toward seeking work, accessing financial services, obtaining health care, advancing education, and improving their standard of living.
- Support families to become informed, active citizens and consumers of services and products—helping them feel more connected, feel a greater sense of security, and become more civically engaged.

Based on a comparison to a national study of Internet users conducted by the Pew Internet & American Life Project, our findings show that the One Economy Digital Communities clients we surveyed are:

- Using the Internet at rates higher than other low-income Americans.
- Accessing the Internet through broadband technologies at rates higher than other low-income Internet users.
- Improving job performance, health outcomes, and community connections through Internet use at rates higher than other low-income Internet users.
- Engaging in specific online activities—such as enrolling in web-based courses—that can lead to positive social and economic outcomes at rates higher than other low-income Internet users.

The high rates of home Internet access we see among One Economy clients lead to high rates of online activity and to an integration of the Internet into clients' daily patterns of life. The value and importance clients place on the Internet is evident in the degree to which clients indicated that there were high levels of competition among family members for computer time.

One Economy clients are using their home Internet connections for a wide variety of activities that relate to key program goals and are relevant to clients' lives, including informational, recreational, and transactional purposes. Our findings show:

- Approximately 75% of One Economy clients use their computers regularly to exchange e-mail, make informational inquiries, read or listen to the news, conduct research for school, and interact with friends.
- Between approximately 25% and 50% use their computers to apply for jobs, make purchases, pursue educational opportunities, and engage in banking.

Most clients report the Internet substantially improves the quality of their schoolwork, job performance, ability to care for their families' health, and feelings of connectedness to

others and their communities. Clients also report a positive effect on job searches and management of finances.

Both San Jose and Miami clients anticipate using the Internet as the primary resource for information gathering on such topics as jobs, health care, immigration, product research, family services, and housing.

Throughout our data there are strong indications that home Internet access supports community engagement for One Economy clients in Miami and San Jose. For example, clients report that they use the Internet to:

- Search for community events and services
- Take part in online groups of which they are members
- Become more connected to family and friends
- Become more included in their community

The majority of clients report that e-mail brings them closer to family and friends, making communication more affordable, more practical, and more open and frank. In addition to supporting personal relationships, Internet access also strengthens clients' engagement in public activities, including participation in political and civic groups.

One Economy clients draw on multiple resources for learning to use their computers and address technical challenges. While many clients have learned new skills and how to solve problems on their own, others rely on One Economy program staff, friends and family, or more formal training in computer classes. In our interviews and focus groups, clients noted that learning computer skills is a significant matter for some new users, and the program should consider additional monitoring of this issue.

The Beehive website has proven to be highly valued and useful, especially for clients in Miami. Our findings confirm:

- High rates of use of the site after one year
- The usefulness of various features of the site
- The high level of awareness of community resources provided by the Beehive
- Client judgment that the Beehive is improved from its previous version

Still, we note that there is considerable variability in clients' knowledge about and use of the site.

Beyond its practical use, having Internet access—being part of the world online—has tremendous symbolic and emotional value for One Economy clients. Clients see the computer as an essential tool of contemporary life as well as an indicator of social inclusion and status. The value and importance of the Internet to One Economy clients is seen in what One Economy clients do with their computers—locating important resources, improving academic and professional outcomes—and also in the way they do

these things—through the means of a local community of users with the potential to continue to support greater levels of digital inclusion at each of the Digital Communities sites.

Introduction

Internet and networking technologies have dramatically transformed what it means for individuals to become active participants in American social, political, and economic life. In under a decade, the United States has gone from being a country in which a minority of households had personal computers to one that increasingly lives and does business online and where people use computers not just for processing information but for a wide range of communication and collaboration purposes (Madden, 2003). In its recent study of Internet use, the Pew Research Center found that 69% of Americans are Internet users. Yet, Internet use among low-income Americans is significantly lower than the national average. Only 50% of those with annual incomes under $30,000 are online; the number drops to 40% for those with incomes under $10,000. Research shows that a lack of technology access is associated with loss of job opportunity, diminished social participation, and slowed economic growth at the local community level (DiMaggio & Hargittai, 2001; Norris, 2001). Moreover, differential access to technology contributes to even wider social and economic gaps between advantaged and disadvantaged members of society (Lentz, Straubhaar, LaPastina, Main, & Taylor, 2000).

Recognizing the importance of addressing these pressing social issues, organizations like One Economy Corporation are striving to improve economic and social outcomes for low-income families and communities through strategic use of technology. One Economy Corporation is a national nonprofit organization that uses a multilayered strategy to increase access to technology and online tools and resources, specifically through:

- *Access to broadband and computers*. One Economy works with partners to deploy broadband into the homes of low-income individuals with a focus on affordable options for both connectivity and hardware. One Economy's *Bring IT Home* campaign has helped provide access to the Internet by effecting change in 40 states' housing finance policies to encourage broadband Internet development in low-income housing.

- *Online self-help resources.* One Economy has created the Beehive (www.thebeehive.org), an online consumer portal offering information and services to support the needs of low-income people. Written at a fifth-grade level in English and Spanish, the Beehive provides information about finances, health, school, jobs, child care, and other important topics to over 180,000 people every month. Localized to connect residents to organizations and resources within their communities, there are currently 26 Beehives in large cities such as New York City and Chicago and smaller communities including Independence, Missouri and Springfield, Massachusetts.

- *Supporting communities of users*. In a select number of cities, One Economy focuses its efforts on increasing low-income individuals' comfort and facility with technology through the creation of "Digital Communities." In addition to providing clients with low-cost computers, Internet access, and the Beehive's localized content, within each of these communities One Economy employs "Digital Connectors," youth who are specially trained to set up and troubleshoot clients' computers, generally providing technical support on a regular and ongoing basis.

In support of One Economy's efforts, SRI conducted an evaluation of the One Economy Digital Communities programs in San Jose, California, and Miami, Florida. Funded by the Knight Foundation, our evaluation focused on the impact of One Economy's efforts to help low-income families enter the economic mainstream through the features of their services that are aimed at:

- Providing families with home access to useful and relevant Internet content that assists them in taking steps toward seeking work, accessing financial services, obtaining health care, advancing education, and improving their standard of living.
- Supporting families to become informed, active citizens and consumers of services and products—helping them feel more connected, feel a greater sense of security, and become more civically engaged.

The overall objective of this evaluation of One Economy's Digital Communities program is to examine the impact that having a computer with Internet access at home has on peoples' lives. The evaluation has sought to measure and describe how the program has influenced attitudes and behaviors that can lead to improved economic and social outcomes for low-income families through the strategic use of technology. From this examination, One Economy can assess the program effects in ways that will contribute to its further efforts to improve the lives of low-income individuals and communities through strategic use of technology.

Methods

In order to answer our key research questions, SRI worked with staff in San Jose and Miami to collect data both broadly from all Digital Communities participants and in a focused manner from particular individuals and families. To these ends, we developed a survey instrument that was administered to all participants. Our surveying effort included measures administered early and late in families' participation in the program that captured changes in attitudes and behaviors over time, and, importantly, compared the results of these measures with similar measures from a national study, conducted by the Pew Internet and American Life Project, of low-income individuals who are not specifically part of the Digital Communities. The focused elements of our evaluation sought a depth of understanding of the impact of the program on the lives of individuals, families, and communities. Our complete evaluation design included the following elements:

1. Early stage and follow-up surveys of all Digital Communities participants on Internet access and use, using Pew national data as a comparison group.
2. Early stage and follow-up interviews with representative participants in each community regarding the changes the Digital Communities program has brought to their lives.
3. Focus groups with youth and adults in each city on key topics for participants in the program.

Description of Sites and Their Participants

San Jose, California. Digital Communities participants from San Jose reside at three low-income housing properties. Plaza Maria is a high-rise apartment complex located in the heart of downtown San Jose. Eden Palms and Ohlone are residential units organized in clusters and spread over a larger, more suburban setting. One Economy clients in San Jose vary in their ethnicity, age, and occupational status. They are all low-income, and often transient. Although most of the clients in San Jose maintain close cultural ties to their national communities of origin, a majority of program participants have lived in the United States their entire lives. Their backgrounds include Somali, Ethiopian, Vietnamese, Filipino, Latino, African-American, and Bangladeshi, among others.

Little Havana, Miami. Digital Communities clients in Little Havana participate in the program through the community center in which the One Economy office is housed. Unlike San Jose clients, Little Havana residents do not live in a subsidized housing complex. Clients in Little Havana are all low-income, almost all Latino, mostly immigrant, and often transient. Survey respondents tended to be female, and older than San Jose respondents. In addition, fewer respondents hold full-time or part-time jobs than those respondents in San Jose.

Sample and Timeframe

Of the 200 participants in the Digital Communities program (100 in San Jose and 100 in Miami), a total of 152 people participated in our study. These 152 people all returned the

initial (Phase I) survey, and then varied subsets of them participated in either an early stage interview, later stage interview, a focus group, and/or the final (Phase II) survey[1].

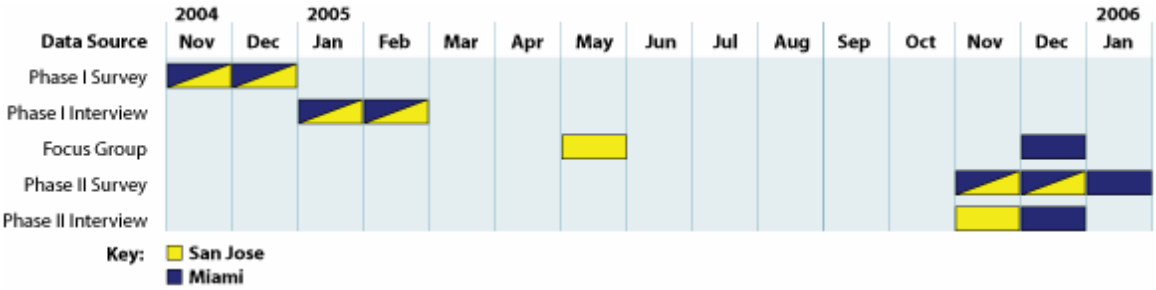
Exhibit 1. Survey sample by site and activity.

	Early Stage		Process	Later Stage	
SITE	Phase I Questionnaire Respondents	Individual Interviews	Focus Group Participants	Phase II Questionnaire Respondents	Individual Interviews
San Jose	71	7	Adult Focus Group: 7 Youth Focus Group: 9	49	6
Little Havana	81	14	Adult Focus Group: 9 Youth Focus Group: 5	57	13
TOTAL	152	21	30	106	19

More information about the background of the participants is provided below.

The evaluation activities began with the administration of Phase I surveys in November of 2004 and ended with the Phase II survey of participants in January of 2006. Interviews with individual clients and focus groups with adults and youth in the program were conducted at various points during the year. Below is a timeline that provides an overview of the evaluation activities.[2]

Exhibit 2. Timeline of evaluation activities.



Survey Instrument

SRI worked in partnership with Pew and One Economy staff to develop a questionnaire that was completed and returned by 76% of the 200 Digital Communities clients. The intent was to survey as many of the 100 clients in each city as possible. The questionnaire was administered twice, early (November and December 2004) and late (November and December 2005, and January 2006 for Miami clients) in program participation to measure change. The questionnaires were administered in paper format during community events organized and hosted by One Economy staff and partners.

[1] It is important to note that participation in this study was voluntary for all Digital Communities clients.

[2] During the timeline of this study, Category 5 Hurricanes Rita and Wilma struck Florida (one of the study sites) in September and October, 2005. This provided an unusual context for the Digital Communities clients in the Little Havana location.

Personal follow-up by One Economy staff and partners was conducted to ensure the highest possible response rates. For the Phase I survey, a total of 71 surveys were returned from San Jose and 81 surveys were collected from Miami. Using the same distribution and follow-up methods for the Phase II survey, a total of 49 surveys were returned from San Jose and 57 surveys were collected from Miami.[3] Many people could not be contacted after this 13-month period between surveys because of disconnected telephones and/or moving to a new address, which is common in these more transient neighborhoods.

The survey included questions about the frequency of use of the Beehive website, purposes for using the Beehive, and purposes for using the Internet more broadly. In addition, participants were asked to endorse whether participating in the program has helped them take particular steps toward improving education and employment or has reshaped their relationship to civic and private institutions in their community. Two versions of the survey, Spanish and English, were produced. (The English language questionnaire is included in Appendix A.) A chief advantage of working with Pew on this questionnaire was that we were able to compare data to a matched group of Internet-connected low-income families who are not in the program to observe any differences between results. Pew administered its comparable items to respondents sampled using a random-digit telephone survey method, allowing us to compare Digital Communities clients with a nationally representative sample of similar adults.

Repeat Responses and Attrition

An important consideration in our data analysis is that our interpretation of measurable changes from Phase I to Phase II is complicated by the drop-out of approximately 30% of the initial questionnaire respondents in both Miami and San Jose. These clients who completed and returned the Phase 1 survey did not return the Phase II survey. Among the 24 Miami clients who did not complete the Phase II survey, for example, only four did not wish to participate. Others had moved out of the area (four clients), were on vacation (two clients), no longer had the computer (four clients), or died over the course of the study (one client). While the details of the 22 San Jose clients who did not complete the second survey are not as well known, at least 12 clients moved out of the housing community, which typically experiences high rates of turnover due to pricing structures in the local housing market.

Exhibit 3 illustrates the demographic differences between those who did and did not take the Phase II survey; they tend to be older and Latino in Miami, and, in San Jose, they tend to be less well-educated and Asian or Pacific Islander.

[3] It is important to note that the Digital Communities clients were 100 families in each city who were allowed to purchase the computers and obtain Internet access. Because questionnaires were distributed, for example, through events that whole families attended (in Miami), and through sending home surveys with children who attended the building's Homework Club (in San Jose), it is difficult to know which family member completed the survey, or whether respondents completed the questions about their own computer use or the computer use of other family members. In fact, after learning that many youth completed the Phase I questionnaire in San Jose (probably due to their stronger English and computer involvement), One Economy staff encouraged the parents of these families to complete the Phase II questionnaire. This inconsistency about which family members completed the questionnaire should be one factor to bear in mind as results are interpreted.

Exhibit 3. Client demographics for San Jose and Miami from Phase I to Phase II.

	San Jose		Miami	
	Phase I	Phase II	Phase I	Phase II
10-30 Years of Age	51%	57%	22%	30%
Female	52%	49%	86%	85%
Latino	33%	43%	97%	91%
Caucasian	15%	15%	5%	6%
African-American	16%	23%	0%	0%
Asian or Pacific Islander	31%	12%	1%	0%
8-12 Years Education	30%	56%	51%	48%
Student	31%	49%	23%	16%
Full-time Employed	32%	35%	20%	31%
Part-time Employed	25%	11%	26%	17%
Member of Group	37%	39%	68%	71%

As a result of the demographic differences between samples at Time 1 and Time 2, the clients who took the Phase II survey are different from those who took the Phase I survey. This complicates the interpretation of any observed change between the phases. For example, did the frequency of computer use for Miami truly increase from 30% to 50% for the One Economy clients, or did the overall level of use actually remain the same, while we simply lost a lot of nonusers between Phase I and Phase II? Such an alternative explanation (an observed change due to survey attrition) should be considered carefully as a plausible interpretation of our findings comparing Phase I and Phase II results.

For this and other reasons we avoid the notation of differences between early and late phase survey administration as “statistically significant.” Typically, a change is statistically significant when one has a high degree of confidence that it is not due to random fluctuations in the survey sample. Due to our attrition from Phase I to Phase II, we can never have sufficient confidence to rule out alternative explanations for observed changes. We instead adopt a rule-of-thumb that we will highlight results where there has been more than a 10 percentage point change from Phase I to Phase II.

Survey Demographics

The Digital Communities program of One Economy surveyed 81 clients in Miami during Phase I of the program, and 57 clients during Phase II. For San Jose, 71 clients were surveyed during Phase I, and 49 during Phase II. The clients in the San Jose and Miami groups represent distinct demographic profiles. The final group of clients in the San Jose group had:

- an equal number of men and women,
- a younger population (57% in the 10-30 year age group),

- more diversity with 43% identifying themselves as Latino, and
- 39% indicating membership in a community service group within the past 3 years.[4]

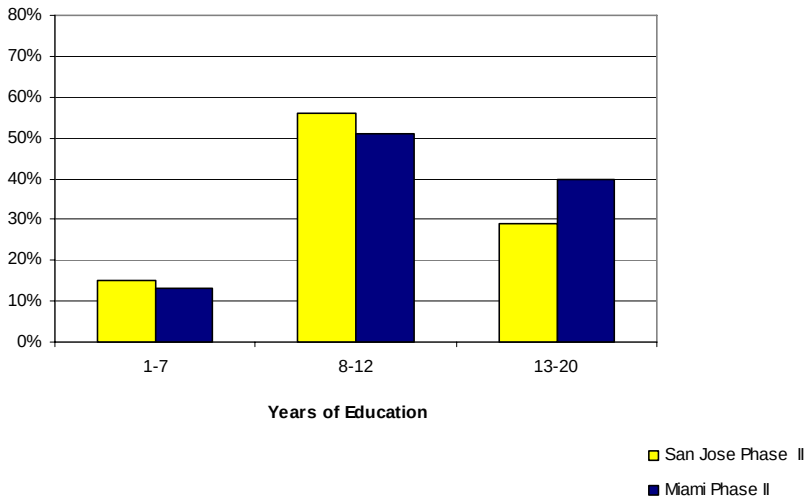
The group of Miami clients at the time of the second survey were:

- predominantly women (85%),
- predominantly Latino (91%), and
- an older population who were ages 31 and over (70 %),
- and 71% indicating membership in a community service group within the past 3 years.

These differences illustrate the uniqueness of each location regarding ethnicity, gender, age, and social network. The clients in the Miami group were predominantly older Latino females, who belonged to at least one social group. In contrast, the San Jose group was more balanced between men and women, had a wider range of ethnic representation, was younger, and was overall less connected to social or civic groups.

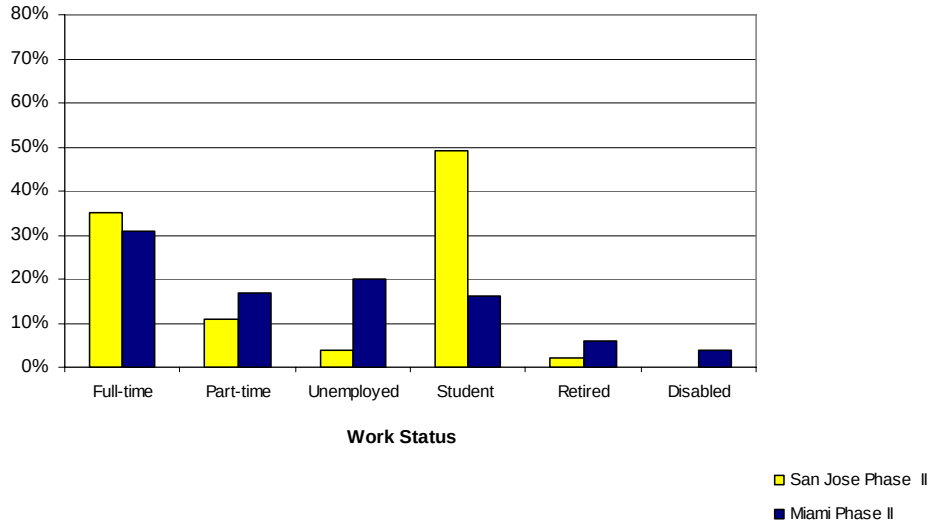
Most clients (in both Miami and San Jose) in the Phase II survey reported having 8 to12 years of education, though 30 to 40% (across locations) had additional years of education. Nearly half of the Phase II survey respondents in Miami report working full or part time, with 21% of respondents reporting they were unemployed. In San Jose, 49% of clients reported being students, and only 4% said they were unemployed. (See Exhibit 4 and Exhibit 5.)

Exhibit 4. Years of education.



[4] San Jose clients reported having a notably higher rate of membership in social or civic groups in the Phase II survey than in the Phase I survey, which is discussed as a program outcome, below.

Exhibit 5. Work status.



Interviews

The primary goal of the interviews with individual clients was to elicit authentic accounts regarding the effect of the One Economy Digital Communities program in each of their lives. To delve more deeply into these experiences and into the issues probed in the surveys, we used semi-structured and free-form interview protocols to elicit reflections and analyses from participants about changes in their lives since receiving their home computer and Internet access. (See Appendix C for the topic areas and key questions.)

Face-to-face interviews were conducted at each site twice during the evaluation to more deeply explore program effects. Although there was some degree of attrition among clients in the program at large, the evaluation team was able to follow-up with nearly all the Phase I interviewees in Phase II. Of the 21 people who participated in the first round of interviews, all but one person in San Jose and two people in Miami returned to participate in the later interviews, for a total of 18 returning interviewees. With each returning interviewee, we were able to probe for changes in participants' lives over time.

The selection of individuals to interview and strategies for soliciting interviewees were based on discussions between One Economy and SRI. We sought to obtain a purposive sample that included interviewees reflecting the diversity of program participants: by age, by gender, by cultural background, and by level of program involvement. The interviews were conducted in the client's homes, allowing SRI to observe the clients using their computers, and to more fully understand the ways the computers have been integrated into the clients' homes and lives.

The interview protocol was designed to probe the topics in the survey such as:

- Who in the clients' households are using the Internet and for what purposes?
- In what ways has Internet access affected the employment, health, financial, and academic aspects of their lives?

- How else have their lives changed since getting a home access to the Internet?
- What kinds of technical problems are they experiencing and how are they getting their problems addressed?
- In what ways has the Internet changed how clients see themselves, participate in their community, and interact with others?

Exhibit 6. Characteristics of interviewees at each site.

	San Jose	Miami
Number of Participants	**7**	**14**
Ages of Participants		
Youth	0	2
25-55	4	6
>55	3	6
Gender		
Male	5	3
Female	2	11
Career Status		
Employed	4	8
Retired	3	3
Student	0	2
Homemaker	0	1
Ethnicity		
Hispanic: Caribbean	0	4
Hispanic: Central America	1	3
Hispanic: South America	0	7
South Asian	1	0
Southeast Asian	4	0
African	1	0

In San Jose, two researchers from the SRI team were present at all but one interview. These interviews were conducted in English. Participants were not paid, but they were given a small box of sweets in appreciation for their time. In Miami, one researcher was present for all interviews, which were conducted in Spanish. No payments or gifts were given. In both locations, the interviews were recorded to support the completeness and accuracy of the data recording and analysis.

Focus Groups

The purpose in conducting the focus groups was to provide a forum in which clients could hear one another's views on key program issues and develop a conversation that could elicit greater reflection and deeper consideration than is always possible in interviews alone. In an effort to extend our understanding of particular issues arising from the

questionnaire data and from our interviews with individual members of the participating families, we conducted focus groups on topics aligned with the survey questions, while allowing for information and ideas beyond the scope of the survey questions to surface. During the focus groups, we made sure to address participants' view of the role of the Internet and their use of the Internet and the Beehive website for employment and career advancements, furthering educational goals, engaging in civic activities, health awareness, and improvement.

As with the interviewees, focus group participants were sampled purposively to represent, as much as possible, a range of backgrounds and experiences. Focus group participants were solicited and selected with the assistance of One Economy staff. The focus groups were comprised of one group of adults and one group of youths in each location. The adult focus group in San Jose involved seven adults, while the younger focus group involved nine youth and children. In Miami, there were nine participants in the adult focus group, and five youths in the younger group.

In San Jose, five of the seven adult focus group participants were also interview participants. In Miami, three of the adult focus group participants were also interviewees, and one of the youth focus group participants was an interviewee.

Focus group protocols were based on survey and interview findings and developed in conjunction with One Economy staff. These focus groups examined such issues as:

- Participants' views on the role of the Internet in their lives
- Participants' approaches to looking for employment and career advancement
- Participants' educational goals and perceived challenges to meeting those goals
- Participants' perceptions of community, civic, and private institutions in their community

Exhibit 7. Characteristics of focus group participants at each site.

	San Jose	Miami
Number of Participants	**16**	**14**
Ages of Participants		
Youth	10	5
25-55	3	6
>55	3	3
Gender		
Male	7	4
Female	9	10
Career Status		
Employed	3	9
Retired	2	
Student	11	5
Homemaker	0	0
Ethnicity		
Hispanic: Caribbean	0	2
Hispanic: Central America	4	3
Hispanic: South America	0	8
South Asian	2	0
Southeast Asian	3	0
Ukrainian	0	1
African	5	0
African-American (U.S.)	2	0

In both locations, the focus groups were held in community center locations. Parents were not present when children and youth participated in the groups. Like the interviews, the focus groups were audio recorded to support the completeness and accuracy of the data recording and analysis.

Our analysis of both the interview and focus group data was conducted using a grounded-theory approach, in which preliminary findings are generated from an examination and coding of the data followed by iterative comparison to assumptions and hypotheses (Miles & Huberman, 1994; Strauss & Corbin, 1990). The process we followed, standard for grounded theoretical analysis of complex data from semistructured and free-form discussion with participants, included development of an initial story line; listing of all major themes, typologies, concepts, and propositions; coding of data sources; sorting the data into the coding categories; and comparing the data and refining the analysis (Taylor & Bogdan, 1998). With a final framework in place, we were able to map the qualitative analysis to the quantitative findings and the original hypotheses, illustrating findings with quotations and narrative provided by the participants.

Findings

Findings from across our quantitative and qualitative data sources together provide a multifaceted view of clients' participation in the San Jose and Miami Digital Communities program and the way the program has affected their lives. There are those in the program for whom having a One Economy computer in their home has been transformative, those for whom it has enhanced many aspects of their lives, and a few who, for varied reasons we discuss, have not yet become active computer users. In this section, we discuss several key categories of findings and how these bear on the primary goal of the Digital Communities to harness the potential of Internet technology to help low-income people improve their lives and join the economic mainstream. We discuss our findings in relation to the four original hypotheses, formulated with One Economy, that underlie this evaluation:

H_1 *Having a computer and Internet access at home* enables low-income families to access information that is relevant to their lives.

H_2 Having a computer and Internet access will help clients *take steps towards*:

- Pursuing better jobs
- Accessing financial services
- Obtaining health care
- Advancing their education

H_3 Having Internet access will strengthen *clients' engagement in the community*.

H_4 The *Beehive* is a helpful website for clients to access the information they consider relevant to their lives.

Based on our analysis of the data, our findings are grouped into the four broad sections that we list below. Each of the sections aligns with one or more of the original hypotheses. The sections into which the findings are grouped include:

- **Home computer access**—including the purposes and patterns of use within clients' households.
- **Program outcomes**—broader discussion of the types of changes clients have experienced as a result of the program and the effects the program has had on their lives.
- **Supports and challenges**—particularly the ways in which learning new computer skills, relying on assistance from others, and real or perceived technical difficulties have affected computer and Internet use.[5]

[5] It is important to note that providing extensive computer training has not, to date, been within the scope of One Economy's model of services or program objectives. This report does, though, give indication of the degree to which clients seek additional services in this area, a potentially useful finding for the purposes of future program development.

- **The Beehive**—especially clients' levels of knowledge, perceived usefulness, and use of the Beehive.

Within each section we first present the most relevant hypotheses, followed by the quantitative and qualitative data, and, where applicable, a brief summary or discussion of the findings.

Home Computer Access

Our guiding hypothesis regarding home computer access and use is as follows.

H_1 *Having a computer and Internet access at home* enables low-income families to access information that is relevant to their lives.

The foundation of the One Economy program model is home computer access. Our findings show that:

- One Economy Digital Communities clients report high rates of computer connectivity and use over a year into the program.
- One Economy clients are using the Internet at rates higher than other low-income Americans.
- Clients are accessing the Internet through broadband technologies at rates higher than other low-income Internet users.
- Digital Communities clients have much higher rates of home connectivity than comparable low-income people in the general population.
- Clients are using the Internet from home more, and away from home more, too.
- Clients' reasons for getting a computer and Internet connection are relevant to improving their lives.
- Clients' reasons for participating in the Digital Communities program are relevant to improving their lives.

Clients Report High Rates of Computer Connectivity and Use Over a Year into the Program

More than one year into the program, 86% of San Jose clients and 82% of Miami clients report going online to use the Internet or e-mail.[6] As summarized in Exhibit 8, a comparison of this finding to recent statistics on Internet connectivity for a national sample of low-income Americans (Pew Internet and the American Life Project, 2006) provides us with a better sense of the Digital Communities' program impact. The Pew data show that only 46% of those with annual incomes under $30,000 have ever gone online, suggesting that One Economy is reaching its primary goal of making a difference in access for those least able to afford it.

[6] To make our data comparable to the national data, we excluded data from One Economy clients (six from San Jose and one from Miami) who reported incomes of over $30,000 per year. For our full sample from each city, Internet usage rates are roughly the same as the reduced sample: 88% for San Jose, and 83% for Miami.

Other key indicators of access for the Digital Communities program compare well statistically against the national sample provided by Pew. When asked whether they went online "yesterday," 44% of the national sample agreed, compared to 63% of the San Jose respondents (a comparison to Miami was not statistically significant).

With regard to home broadband access, which correlates with higher levels of Internet use (NTIA, 2004), 17% of the national sample reported having high-speed connections, compared to 63% of the San Jose clients and 29% of the Miami clients.

Exhibit 8. Comparison of Internet use between San Jose and Miami One Economy clients and Pew national sample.

Internet Use	Pew National Sample	One Economy	
		San Jose	Miami
Use the Internet	46% (n= 720)	86%** (n= 43)	82%** (n= 55)
Went online yesterday	44% (n= 305)	63%** (n= 43)	50% (n= 54)
Have broadband in the home	17% (n=305)	63%** (n= 43)	29%* (n= 51)

** Indicates difference from Pew National sample at p <.05.*

*** Indicates difference from Pew National sample at p <.01.*

Overall home connectivity rates for One Economy clients are very high: 92% of survey respondents in San Jose and 92% in Miami report having a home Internet connection. Approximately 35% of clients in each city still are receiving their Internet access through One Economy, 1.5 years into the program.[7]

A few clients who did not have home connectivity volunteered to be in our interview and focus groups in Miami in Phase II of our study. This gave us additional perspective on the reasons why some clients do not have Internet access. Their reasons sorted into three categories:

- Physical problems with computer or home

  My computer was working until two months ago…[when] we were moving out of our house…it fell from my bed.

  My house is under reconstruction…I don't want the dust to ruin the computer.

- Lack of money for online access

  I had a [DSL] connection for a while, but it was very expensive.

  I don't have a telephone line in my house.

- Lack of time or other resources to learn

[7] Part of the Digital Communities program design is to provide wireless access points for some percentage of clients in targeted communities.

I'm very busy and don't have time to start learning.

I attended two of the classes, but can't figure out how to start.

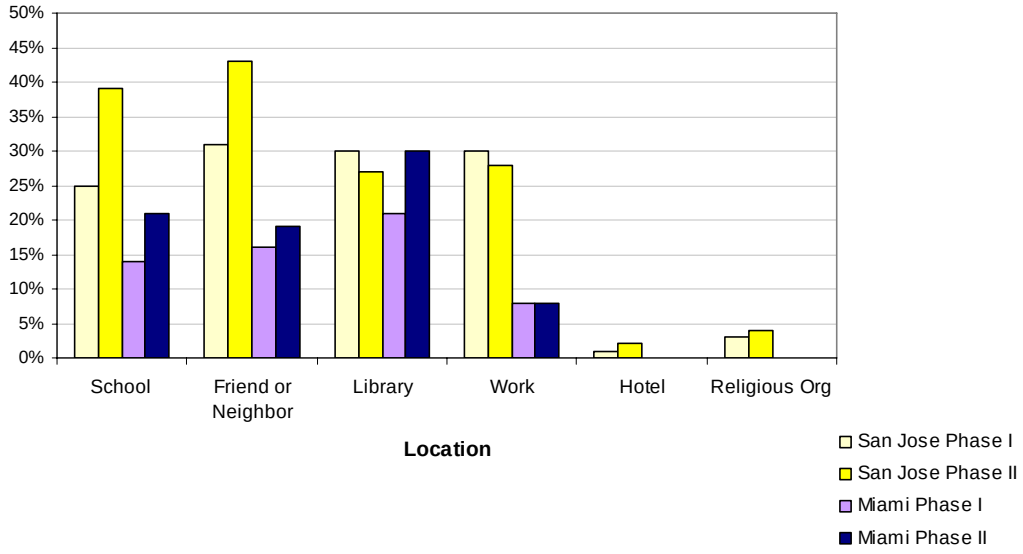
Because of its significance and complexity, we address the issues of having sufficient support to learn to use computers at some length below. Nonetheless, despite these types of difficulties, clients in both communities are, overwhelmingly, maintaining access to the Internet.

Clients are Using the Internet from Home More, and Away from Home More, Too

Importantly, our survey data show an increase in home computer use as well as increases in use elsewhere—clients are using the Internet more both at home and away from home. Over the course of the Digital Communities project, as Exhibit 9 shows, San Jose clients reported using a variety of alternative Internet locations listed on the questionnaire[8] to access the Internet. Phase II clients reported higher rates of using the Internet both at a neighbor's or friend's house and at school. In Miami, by Phase II clients used four types of alternative Internet locations mentioned on the questionnaire and reported higher rates than Phase I respondents regarding the frequency with which they access the Internet at libraries and at school.

Overall, Digital Communities clients are using the Internet in varied locations: 73% of the clients in San Jose and 46% of the clients in Miami report having used the Internet away from home at least once.

Exhibit 9. Main locations for Internet access in addition to home usage from Phase I to Phase II.



[8] The alternative locations offered as responses on the questionnaire include the library, friends' or neighbors' homes, community centers, school, work, Internet cafes, hotels, and religious organizations.

A comparison with the Pew national sample shows a significant difference in how much the two groups use the Internet only from home. While 58% of the national sample access the Internet only from home, just 5% of the San Jose clients and 42% of the Miami clients report the same.

Exhibit 10. Comparison of Internet use "only at home" between One Economy clients and Pew national sample.

Internet Use at Home Only	Pew National Sample (n= 305)	One Economy	
		San Jose (n= 43)	Miami (n=55)
Home use only	58%	5%**	42%*

* *Indicates difference from Pew National sample at p <.05.*

** *Indicates difference from Pew National sample at p <.01.*

For both cities, the findings suggest that accessing and using the Internet is not limited to clients' homes. Instead, clients are becoming more fluid—one might say more fluent—in being able to use technology as the opportunity presents itself. We furthermore see that as the Internet becomes a more essential element in their lives, clients are finding ways to ensure they stay connected. For example, one Miami client, who, for financial reasons had to temporarily discontinued her DSL service, reported to us that she consistently went to the library every other day to check her e-mail and do research.

These findings also indicate that clients are not using their computers in isolation from other people, but rather in community settings or settings with friends and family, where they are more likely to be able to ask technical questions and receive support for improving their computer skills.

Clients' Reasons for Getting a Computer and Internet Connection Are Relevant to Their Lives

The importance to clients of having a computer—their reasons for maintaining an Internet connection—is a significant and continuing theme of this report. In an implicit but meaningful way, the responses to survey questions about what clients use their computers for answer the question of why they would want a computer. More directly, many of the clients with whom we spoke offered elegant or poignant commentary on their view of the value of computer. One man volunteered:

> *I am 60 years old. In my time there was no computer and I had no computer knowledge. But even now seeing computer and the result of computer, the benefit of computer, I am eager to learn it. Sitting in America, in San Jose, I can watch my country's newspaper in the website. I can do e-mail easily.*

A mother with three children said:

> *We all benefit from the computers on one level or another, but nowadays for the children, everything is computerized.*

Another mother— who noted that computers keep children inside their homes, safe from in gangs and drugs—offered:

> *This program is an early support for the kids, because it opens and refreshes their minds, giving them a technological tool to do well at school and not to get frustrated.*

A woman who uses her computer to stay in touch with her friends and relatives in Argentina, stated:

> *The computer is my love…it is a family reunion.*

Most succinctly, a 90-year-old client stated:

> *It is very important to use it, because it helps in everything you do.*

Clients' reasons and types of uses roughly cluster by age

Among the clients with whom we spoke, some distinct profiles stood out. The following table provides general, summary categorizations of the main profiles of our interviewees and focus group participants by age, reasons for having a home computer, and primary purposes in using a computer.

Exhibit 11. Reasons for having a home computer and its main uses.

Age Category (with General Age Range)	Reason for Having a Home Computer	Main Uses for the Computer
Children and youth (10 to 20)	Computers are a standard and necessary home appliance; not having one at home is a great inconvenience.	Homework (desktop productivity applications, Internet research), web surfing, gaming, instant messaging, e-mail, and music.
Younger adults (20 to 50)	Having a home computer represents being in the economic mainstream; a computer is a professional tool, sometimes a necessity, depending on circumstances; important for many other functions such as children's schoolwork, communication.	Researching professional and personal information; conducting transactions; communicating with friends and relatives; web surfing and entertainment.
Older high-level users (50 and up)	Mostly personal use, with commitment to maintaining a working and connected computer; emotionally significant insofar as it contributes to the quality of life.	Gathering information, often radio or text news from the home country; personal transactions; communicating with friends and relatives; web surfing and entertainment.

Older low-level users (50 and up)	Having a home computer is a sign of social inclusion and represents the possibility for more learning and use at a later date; can be useful for children and grandchildren who visit.	Occasional e-mail, printing of documents, entertainment (including Mahjong and Solitaire games).

Although these categorizations represent broad generalizations, we found during our interviews and focus groups that having a home computer is consequential to clients in all age groups in both highly practical as well as symbolic ways. For the clients with whom we spoke, in addition to providing access to the basic tools and resources of contemporary life, the One Economy computers also provide first-time computer owners with a new identity—one with a more solid footing in the social and economic mainstream.

Having a computer is emotionally significant to clients

For Digital Communities clients of all ages and backgrounds, having a computer has emotional relevance. One of the more striking findings from our interviews and focus groups, in fact, is just how emotionally significant having a home computer and being online is for One Economy clients. This point is illustrated by the following two vignettes, one from an interview with a husband and wife—Hien and Thuy— a few months after they received their One Economy computer, and one from Guadalupe who uses her computer to feel motivated and connected to the world.[9]

Exhibit 12. Client story: Emotional significance of computer.

"The computer is my friend."

*In San Jose, Hien, who spent nearly a decade in a labor camp after the end of the Vietnam War, and nearly another decade making his way to the U.S., explains that "every time" he sees an acquaintance, he tells them to "*learn how to use the computer and make friends with it.*" The computer makes life "*much better" *and helps him "*not feel alone*" since losing his job of 14 years at a local manufacturing plant. With a big smile and some searching for the best English words, he repeats that with the One Economy, computer life is "*much more funny, yes, much more funny*"—in clear contrast to the way life had been before.*

[9] All client names in this report are pseudonyms.

*Hien and his wife, Thuy, use their computer in so many varied ways that it is hard for them to recall them all. Hien shows us how he streams Vietnamese-language news broadcasts from the BBC and Radio France; Thuy points out pictures of family in Paris she has received via e-mail and printed to brighten their walls; Hien tells us how carefully he guards his password for the Social Security Administration website because of how much of a help it is to conduct his business with the government online; Thuy smiles as she tells how she shares the software for some of her favorite games with neighbors from other parts of the world. Like other retirees we met, the computer provides Hien and Thuy a connection to loved ones and to the wider world, a tool for many personal tasks, and significant presence in their lives, so much so that several times during our interview Hien remarks, "*The computer is my friend.*"*

Exhibit 13. Client story: Connection to others and to the world through the Internet.

"The computer is a healing thing for me."

Like so many of the adults we interviewed, Guadalupe shared with us that the computer has been an antidote to the depression she was experiencing. After immigrating to the U.S., Guadalupe felt, as she put it, like an "obsolete machine*." She went to see a doctor for medication, and also tried taking on new and meaningful activities, including accessing the Internet at the local public library. But using a computer at the library was very difficult, since she typically had to wait in line an hour to get just one 45-minute online session.*

*Now that she has a home computer, Guadalupe goes online everyday, both in the morning and once she gets home each afternoon. She spends most of her online time e-mailing relatives and friends in Colombia and Spain, and dreams of the time when she can start using a webcam, especially to communicate with her son in Columbia. She also goes online to read news from multiple international sources, and says she understands all the technical issues regarding recent natural disasters thanks to the Internet. Guadalupe offers, "*The computer is a healing thing for me… it helped me to overcome depression and to entertain myself*." She adds,* "If I didn't have my computer tomorrow, I would get very depressed.*" She no longer even needs to take so many pills, she explains, adding that because of her One Economy computer she feels that she is motivated to do things again. Guadalupe's assessment of her life is that "*the more she knows of computers, the better.*"*

Across the clients with whom we spoke, our analysis shows that the emotional significance of the One Economy computers falls into five main categories:

- **Clients have come to feel capable with new technologies**. This sentiment was pervasive among novice computer users (about half of interviewees). One woman, who said in her Phase I interview that she did not use even a calculator before, shared:

Having this computer has relieved me from an internal trauma.

Another woman reported:

I have lost the fear of computers.

- **Clients feel that their lives are enriched by their computers**. Computers are described as "*friends*," as "*eyes*," as "*windows to see the world*," and as other essential components of a full and happy life.

  Without my computer, my life would be very sad.

- **Clients feel that their computers symbolize the possibility of their fuller participation in the social and economic mainstream**. Some of the most poignant expressions of this come from clients who have not yet fully used their computers:

  I have to find a fast way to learn it because it is so important.

- **Clients feel that they are no longer disadvantaged in relation to others.** One woman spoke of the emotional effect on youth:

  This program gives kids a lot in emotional terms…[with it] they feel they are just the same as every other kid [in school].

Overall, we see that the experience of being "*the same*" as others, of not being excluded from using digital technologies because of a lack of resources or knowledge, means a great deal to clients.

Clients' Reasons for Participating in the Digital Communities Program Are Relevant to Their Lives

The One Economy clients who participated in our interviews and focus groups differed in the degree to which they used their computers and were actively part of the Digital Communities program. Still, nearly all the people we spoke with received direct, tangible benefits from participation. All participants, even those who had not used their computers much, indicated that being part of the program was in some way useful to them.

Clients especially value the low-cost computer and free Internet access

All Digital Communities clients in our interviews and focus groups expressed appreciation for being able to participate in the program and receive its benefits. Although some expressed minor dissatisfactions, clients' valued one or more of the following features of the program:

- **Being able to purchase a low-cost computer**. All the clients we spoke with expressed their appreciation for the low cost of their computers with statements such as the following:

  This has been an opportunity for me and my family, because we did not have enough money to buy a computer.

I could not have bought a computer for more than $50.

- **Having free Internet access for extended periods**. Almost every client specifically mentioned how helpful it was to have had Internet access provided by the program:

  I'm very happy to have the [dial-up] account for another six months.

  The free wireless is really good—I really like getting the wireless card.

- **Receiving technical support from program staff and Digital Connectors**. Approximately half of clients mentioned calling on program staff for assistance, which was generally considered helpful and valuable:

  Roberto has helped me a lot…One of my sons takes computer classes with him.

  When I have a problem, I call the Digital Connectors—they come in a day or two and fix it.

- **Having been provided with setup and some basic training**. Although most of clients focused on their need for more training, several indicated that the help with setting up their computers and the basic training they were provided was essential for them to be able to use their computer:

  They came and set it up so I could start.

  They showed me how to start…that was good.

- **Being able to locate useful information through the Beehive**. Among the participants in our interviews and focus groups, only about half a dozen—all from Miami—frequently used or had a depth of familiarity with the Beehive. This small group, however, was enthusiastic:

  I like the Beehive very, very much.

  With [the Beehive's] information, parents can start to advocate for themselves and their families, and start treating their problems and issues.

The only significant dissatisfaction about the program regarded training: clients felt that more of it should be provided. This issue will be discussed further below.

Not all clients are aware of the services and scope of the One Economy program

Despite their satisfaction with the program and the joy they experience in having a computer, there is indication that not all clients are precisely aware of what services are provided by One Economy. Several of the clients we interviewed did not seem to know the name of the program or sponsoring organization, and some confused other

organizations—such the local community technology center in Little Havana—with One Economy as the sponsor of the program. As one client in Miami said:

> *If it wasn't for [the local community technology center], I could not afford to have a computer.*

Certain features of the way the One Economy program is organized make the distinctions difficult. In San Jose, the computer coordinators at the two housing sites, Vivienne and Marcus, were often referred to as if they were One Economy staff. [10] For example, one woman spoke of the Digital Connectors as "*Vivienne's kids*," and said she was happy to be able to "*always ask Vivienne*" for the technical support she needed when asked if she felt she was part of an ongoing program with One Economy. At the other San Jose site, when asked as to whether he was happy with the program generally, a client responded:

> *Yes, we like our computer and our very good friend Marcus is a good person.*

Another source of confusion for some clients is the nature of online service providers. One woman who is an active user in Miami and had frequently obtained support from One Economy, said that she did not "*belong to the One Economy program anymore*" and does not "*call the Digital Connectors anymore*" because she switched from the dial-up service originally provided by One Economy to a different provider. She thought she no longer had a Beemail account, and even indicated that she did not think she could use the Beehive anymore, even though the Beehive is a website accessible to anyone with a browser.

Multiple members of family use the computer

The rates at which respondents reported being the only member of the household using the computer were much lower in Phase II than in Phase I (2% in comparison to 14% in San Jose; 19% in comparison to 28% in Miami). In our Phase II interviews, we found that in nearly all cases One Economy computers were used by multiple members of the household.

In five cases, we found that the adult who originally purchased the computer ceded use partially or entirely over to the children in the household. These clients indicated that they had not found adequate time or support to develop sufficient skills themselves. One woman explained:

> *I do not use the computer at all—only my daughter does. I want to learn, but the [community center] classes are always full.*

Another woman, whose 13 and 15 year-old daughters use their computer a great deal, had a similar problem:

> *I don't have a lot of time to learn*

[10] Vivienne and Marcus are pseudonyms. It should also be noted that the "frontline" staff in San Jose—the computer center coordinators at the Mercy and Eden housing sites—are not One Economy employees. Because of policy, the director of the San Jose Digital Communities program plays a different role from one played by the director in Miami.

In a few instances, parents told us that they rely on the younger generation to carry out tasks such as pulling up news stories from the home country or looking up information that might benefit the whole family.

> *I ask my son to help me see the newspapers of my country… and sometimes I get information [by] e-mail. I reply, but not me personally—by my son or daughter. [To] e-mail someone, they do it for me. When they come I go and read it.*

The use of the computer by multiple family members is illustrated by the following vignette, where everyone in the family takes advantage of their computer.

Exhibit 14. Client story: Competition for computer use in one household.

"She leaves me no time."

*Entering Carlos and Lupita's home, one notices her laughing while she is chatting on MSN with her nephew in Argentina. They have installed a webcam that allows them to see each other, which Carlos says has "*worked perfectly*." Lupita frequently downloads music and poems, in addition to engaging in online chat. Their children need the computer for the projects they do in school, particularly to do research or follow up on topics they want to understand more deeply, and they want to play games online as much as their parents will allow. Carlos tells us about his many online activities: checking his e-mail, reading the Argentinean newspaper, following up on the soccer league, and chatting with his relatives in South America. He also has paid traffic tickets and their taxes online. He even once started to take a web-based English class, but dropped it because he was not impressed with the quality. He adds, "*But if I didn't have the Internet at home, I wouldn't have found this out*." As we are talking, Carlos takes note that his wife has gotten up from the computer. He tells us that this may be the only time where he can check his e-mail, because his wife is on the computer "*all the time*" and "*leaves [him] no time*" to use it.*

Families feel they need multiple computers for multiple users

During our interviews, we spoke with several families who wanted or felt they needed more than one computer. As one woman explained:

> *I tell (my children) you've got to step aside because I have to do my work. I wish we could have more than one (computer) so they could do their work and I could do my things.*

Later in the interview, she asked the interviewers if One Economy would sell her a second computer.[11]

In fact, in three cases, we found that the One Economy computer was not the only functional, online computer in the client's household. When asked why they bought the

[11] This client—a single mother and full-time student—also noted the difficulty she had paying for printer cartridges and other costs associated with her home computer.

additional One Economy computers, one of the interviewees reported that his daughter bought it for doing her schoolwork. Another interviewee, who lives with his wife and four children, responded, "*Because it was a good price and we needed another one*." He indicated that even with two computers, the competition for using them was high. In the third case, the head of the household indicated that there was a second computer by making the comment "*the kids mostly use the other computer*" and other similar statements.

Overall, half of the 42 clients we spoke with in our interviews and focus groups indicated there was a high demand for computer time in their homes. Although the need for multiple computers in the household was not common to all the clients we spoke with, many clients in both San Jose and Miami felt that they needed more access from home for the household's multiple users. We see this as an indication that One Economy clients are coming to see the computer as an essential tool in their lives; the one-to-one computing ratio for family members that pertains in many middle- and high-income households is one that low-income families would like as well.

Summary

The One Economy Digital Communities program has helped clients become active users of the Internet at high rates—rates much higher than other low-income Americans. One Economy clients in San Jose and Miami have maintained home access and connectivity, and, in addition to using their home computers, are making use of the Internet at multiple and varied locations in their lives. Clients see the computer as an essential tool of contemporary life, and feel profoundly more included in society and connected to the broader world through the Internet. Patterns of use for their home computers vary by family circumstance, but, in general, family members have developed ways to successfully integrate active Internet use into family life. One difficulty for a significant proportion of clients is managing high demand for use among family members—a strong indication of how important Internet access has become to One Economy clients.

Program Outcomes

The previous section provided an overview of the degree to which clients have Internet connectivity and the significance clients attach to having technology, particularly in their homes. The purpose of the One Economy Digital Communities program goes beyond providing access, though. The program's primary objective is to provide clients with opportunities to use digital technology to improve their lives, most notably by helping them integrate into the social and economic mainstream. Our second hypothesis directly addresses the mechanism through which the program supports these goals and underlies the analyses in this section.

H_2 Having a computer and Internet access will help clients *take steps towards*:

- Pursuing better jobs
- Accessing financial services
- Obtaining health care
- Advancing their education

In discussing program outcomes, we will also discuss findings relating to the third hypothesis:

H_3 Having Internet access will strengthen *clients' engagement in the community*.

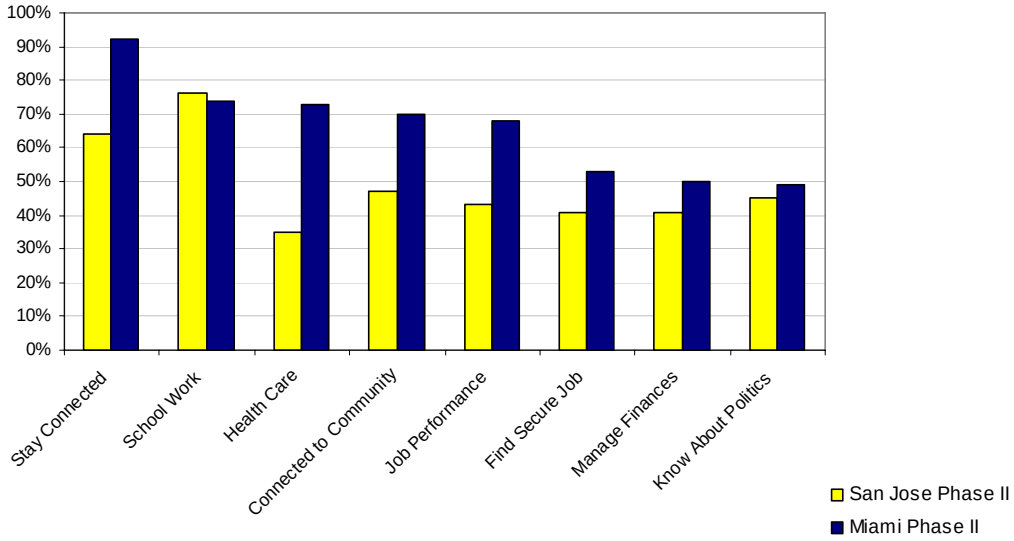
Our findings show that:

- Having home access benefits clients for all key goal outcomes, such as improving school and job performance.
- Clients use home Internet access for a broad range of meaningful purposes.

Home Internet Access Benefits Clients in All Goal Areas

After a year of participating in the Digital Communities program, San Jose and Miami clients reported that they and their families benefited from Internet access across all important program outcomes. Notably, for all the listed program outcomes, at least 30% of clients at each of the sites agree that the Internet has helped them improve their lives, and for most outcomes the percentage of clients helped is much greater (see Exhibit 15). In both communities, we see the most significant impact in how much clients report the Internet has helped members of participating families do better on school work (San Jose 76 % and Miami 75%). We also see dramatic impact in how much the program helps Miami clients feel more connected to others (92%). Miami clients also report that because of the Internet they are better able to take care of their health (73%), a particularly important outcome in a community where few have health care coverage.

Exhibit 15. Degree Internet has helped self and family in San Jose and Miami.



For two of these outcomes—impact on health and job performance—we have data allowing us to make comparisons with the national low-income population sampled by Pew. For both these outcomes, the One Economy clients in Miami report significantly greater positive impact on their lives than the national sample (statistical comparisons between Pew and the San Jose clients are nonsignificant). For health issues, 42% of the Pew sample and 77% of Miami clients report improvement because of the Internet. For job performance, 41% of the Pew sample and 67% of Miami clients report improvement because of the Internet.

Exhibit 16. Comparison of the outcomes of Internet use between San Jose and Miami One Economy clients and Pew national sample.

Outcomes of Internet Use	Pew National Sample (n = 305)	One Economy	
		San Jose	Miami
Improve health	42%	30% (n= 42)	77%** (n= 45)
Improve job performance	41%	40% (n= 45)	67%** (n= 45)

*** Indicates difference from Pew National sample at p <.01.*

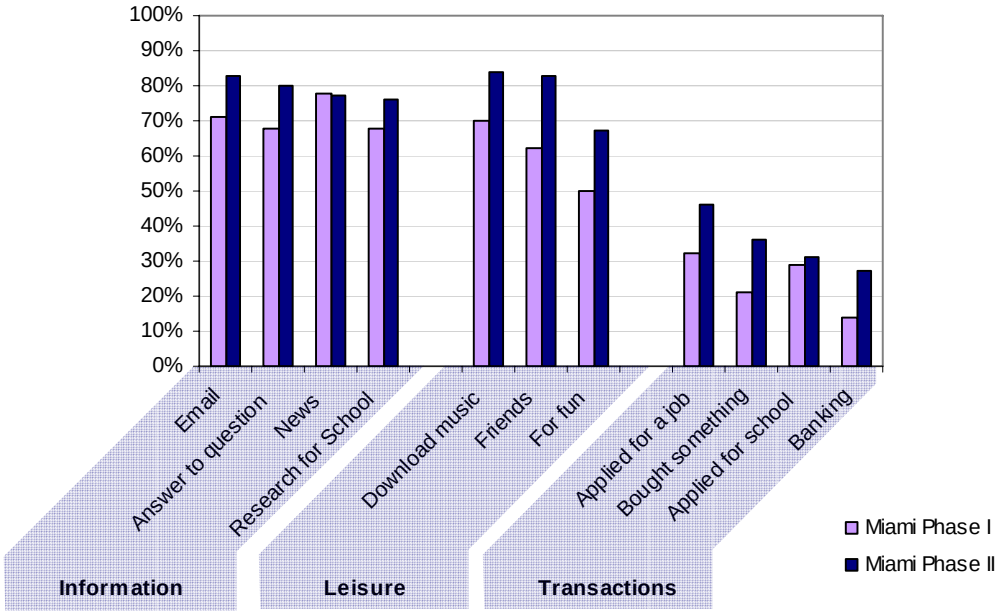
The positive outcomes that we see for One Economy clients develop from the uses to which clients are putting their computers. The following section provides more detail on clients' computer and Internet use, showing how One Economy clients are using the services One Economy provides.

Clients Use the Internet for a Broad Range of Purposes Relevant to Their Lives

In the Phase I and Phase II surveys, both San Jose and Miami clients reported using the Internet "sometimes" or "often" for a broad range of purposes. Miami clients reported using the Internet for purposes related to information, leisure, and transactions, as shown

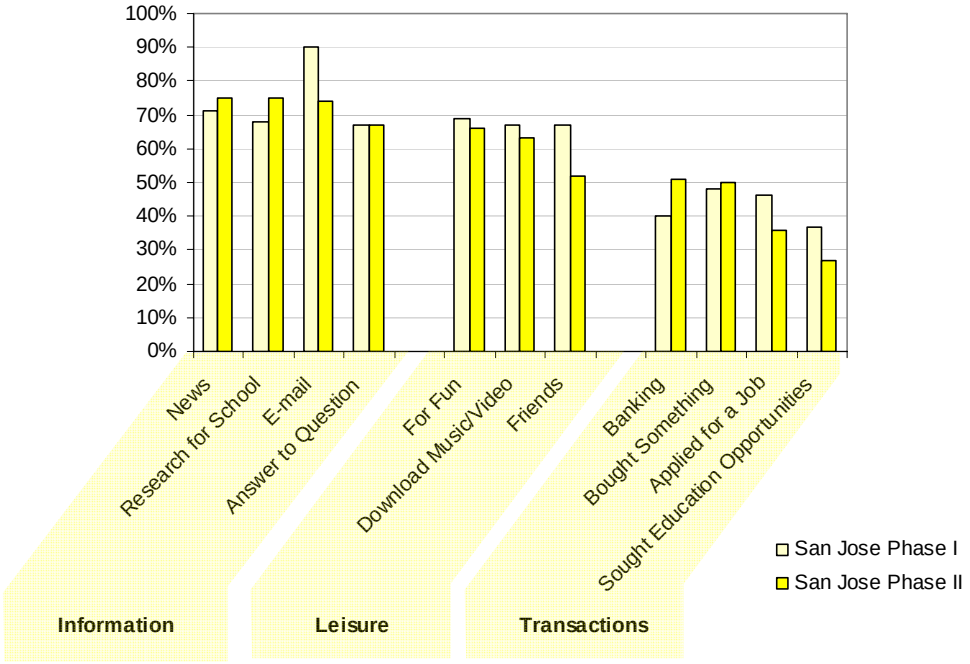
in Exhibit 17. The most common uses—75% or above—include e-mail, informational inquiries, news, school research, music downloads, and interacting with friends. Although Miami clients do not conduct transactions as often as they undertake other types of online activities, still, between 28% and 45% report that they apply for jobs, make purchases, pursue educational opportunities, and do banking online. In Phase II, more Miami clients reported using the Internet to apply for a job, make purchases, or to do banking than in Phase I.

Exhibit 17. Miami Internet use from Phase I to Phase II.



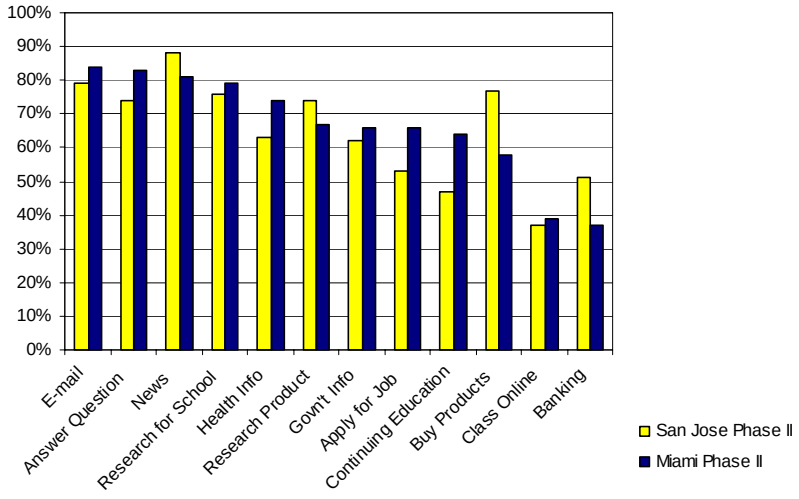
San Jose clients report using the Internet most frequently for informational purposes, including getting news and doing research for school. More clients in the Phase II survey reported using the Internet for banking than respondents in Phase I. Unexpectedly, fewer San Jose clients report in Phase II that they are using the Internet frequently for e-mail than in Phase I (a change from 90% to 74%). This finding parallels a lower rate of clients reporting that they interact with friends online through chat and other exchanges. We do not know if this difference between Phase I and Phase II reflects a difference in the sample between the two survey administrations, a short term effect, or a real overall decline in rates of e-mail use from the high initial rates.

Exhibit 18. San Jose Internet use from Phase I to Phase II.



If we consider clients who report having *ever* done a particular activity—not just those who have done it "sometimes" or "often"—we see higher rates for the least common activities. Many more clients, it stands to reason, would have used the Internet once or twice to take a class online, for example, than would have done so more frequently within the timeframe of the program. In fact, when looked at this way, 39% of Miami clients and 37% percent of San Jose clients report having taken a class online. Other rates for important—yet less frequent—transactional and informational online activities also seem quite high.

Exhibit 19. Internet use in Phase II for San Jose and Miami.



For several categories of online activities, we have data that allows us to gain perspective on the rates of use by One Economy clients by making comparisons with the national sample from Pew. The comparisons show significant differences in levels of use for all categories of comparison except "ever used e-mail" and "just for fun" (the One Economy and Pew groups both reported high use for these questions). As the figure shows, we see both San Jose and Miami clients having used the Internet more than the national comparison group for getting news, getting class credit toward a degree, downloading videos, and downloading music. We also see that San Jose clients have done banking online at rates higher than the national Pew sample.

Exhibit 20. Comparison of online activities between San Jose and Miami One Economy clients and Pew national sample.[12]

Online Activities	Pew National Sample (n = 305)	One Economy	
		San Jose	Miami
E-mail	83%	79% (n= 42)	84% (n= 55)
News	60%	88%** (n= 42)	81%** (n=48)
Just for fun/pass time	70%	79% (n= 42)	76% (n= 44)
Banking online	29%	51%** (n= 43)	37% (n = 43)
Class for credit toward degree[13]	12%	37%** (n= 44)	38%** (n= 44)
Download video	20%	77%** (n= 43)	84%** (n= 43)
Download music	28%	77%** (n= 43)	84%** (n= 43)
Created or worked on web pages or blogs for others[14]	10%	40%** (n= 43)	29%** (n= 42)

*** Indicates difference from Pew National sample at p <.01.*

In our interviews and focus groups, clients described engaging in a full range of typical uses with their computers (such as e-mail, games, and web surfing), though we also documented a great diversity among clients in their types of computer usage. While Exhibit 11 suggests the clustering or patterns of use typical among clients of different ages, each client's needs, interests, resources, and capacity to use the computers varies. The following vignette highlights the experience of a client in Miami for whom the program was instrumental, she relates, in reaching her goal of passing her social worker certificate exam.

[12] The question for the One Economy clients was somewhat narrower in scope than for the Pew participants. One Economy clients were asked about having done the online activities specifically at home, whereas Pew participants were asked about doing them generally, from any location. Therefore, the "true" gap between the two groups is probably even larger than we are reporting.

[13] The question wording is not precisely equivalent in the Pew survey and our questionnaire. One Economy clients were asked if they use the Internet at home to "take a class online," without specifying the course be taken for credit.

[14] For this item, the questions we are comparing are somewhat different. One Economy clients were asked if they use the Internet at home "to create content for the Internet, such as contributing to a website or online bulletin board." Pew staff asked respondents if they ever use the Internet "to create or work on web pages or blogs *for others*" (emphasis added).

Exhibit 21. Client story: Professional advancement through home Internet.

"I have achieved my goals."

*Arturo says, "*the computer has been a tremendous help, my blessing*." He explains that in order to pass his social worker certification exam, he bought two practice CDs he considered essential to his preparation. "*Without a computer in my home,*" he explains,* "it would have been impossible for me to study with these CDs.*" He elaborates that this is because it took more than one and one-half hours to complete each test, and the computers in the library, which he would have used otherwise, can only be used in 45 minute increments. Arturo shares that he passed the test, and that he "*thank[s] the computer and the [One Economy] program for this.*" Arturo says that the One Economy computer "*satisfies [him] completely,*" since through it he has achieved his goals.*

A conversation among participants during the Miami adult focus group provides an illustration of the variety of types of uses clients identify. In rapid, round-robin succession, clients mentioned some of their favorite uses, including:

- Doing homework for an adult English language class
- Making immigration appointments
- Writing and printing personal letters ("*Having this computer has been a tremendous inspiration to write letters.*")
- Listening to music from Cordoba, Argentina all day ("*The computer is my only vice.*")
- Practicing typing with the application "Mavis Beacon*"*
- Looking for job information
- Buying a webcam and installing MSN to see family in Peru ("*The computer has allowed me not to feel lonely, because you can feel very lonely in this country.*")
- Designing flyers for the community
- Paying bills—telephone, bank, electricity, credit cards, cell phone
- Learning about herbs and alternative medicine
- Avoiding trips to the library for children to do their homework ("C*hildren can work at home where it is safe…it's a great relief for mothers.*")

The range of uses and interests among clients in San Jose is similar to that in Miami. Clients in San Jose share also reported enthusiasm for using their computers to communicate with relatives, to help their children in school, and to save time when dealing with government agencies. An illustration from one family gives a sense of the many different uses Digital Communities clients have for their computer.

Exhibit 22. Client story: Multiple computer uses for family members.

"It gives us endless utility."

For Jalaladin's wife Masuma, comfort comes in the form of a webcam that she uses regularly to talk with her eldest son, the one member of the immediate family who remains in Bangaladesh. Their daughter uses their One Economy computer to do research and papers for her classes at San Jose City College. Their teenage boy does with the computer everything that a teenage boy typically would do—and then some, recently winning first place in a poster design contest to denouncing student bullying in his school district. Their 7-year old son, according to his father, uses the computer the most, and knows the most about it. Jalaladin himself finds multiple ways to make use of online resources, regularly reading four Bangaladeshi newspapers online and recently purchasing discount tickets for a trip to their home country via the Internet from a travel agency in Bangaladesh.

Their One Economy computer holds a central place in the family and in their individual lives, partly a testament to the father's understanding of the importance of the Internet as a tool. An early, powerful experience for Jalaladin occurred when he was trying to get a visa for his wife to come to America, and, through e-mail, expedited a process that usually involves long periods of waiting. Since then, he has recognized the "endless utility" of the Internet and the importance of the One Economy program in making online home access possible for so many.

Despite the general embrace of a full range of uses described by clients in both San Jose and Miami, we heard specific concerns about engaging in online transactions; three or four clients specifically indicated that they did not pay bills or make purchases online for security reasons. One technically advanced client explained that in the past he had been paying bills and making purchases online, but then he "*heard that it wasn't safe*" so he now "*sends all his bills through the post office*." Another client drew a sharp contrast between the types of uses she trusts and values:

> *I'm not a shopping online person. I don't trust any online thing, especially with my personal data, but I do a lot of research and school work.*

Speculatively, it may be that low-income Americans are especially sensitive to the potential risks of conducting online transactions because of the financial consequences and concerns about avenues for recourse in case problems arise. At the extreme of concerns about security, one client said she had become afraid of visiting websites about foreign countries because she felt doing so "*might make people think that [she is] a terrorist.*"

Nonetheless, in both cities we saw clear evidence that, with few exceptions, clients at all levels of experience were increasing their skills and capacities for using their computers. Even among elderly clients, many of whom had established routines for using their One Economy computers shortly after receiving them, we heard expressions of strong interest

in being able to do new things: enroll in Medicare, listen to songs sent by friends through e-mail, save images, and send photos.

In talking with teens in our focus group, it is clear that computers are an integral part of their school life; most of their written work needs to be typed, research assignments rely on web searches, and students regularly communicate with one another via e-mail or chat about assignments and school life.

> *I use it a lot for school—mostly to do my homework.*
>
> *[My class] is all projects. The computer is very important for me to do these — to do research and write the reports. And to find out what's going on.*

The teens we spoke with demonstrated a developing sense of informational literacy. When discussing research for school, the teens offered thought-out explanations for how to judge the quality of online information. One girl offered:

> *The quality of information is not really an issue, because when you see that the same information appears in many different web pages, the information is probably right. There are also web pages where one can know for sure that they don't lie.*

They even discussed the process through which the Wikipedia is generated. After noting that their teachers do not like them to use the Wikipedia, one boy said:

> *[With the Wikipedia] it's difficult to know [whether the information is right or wrong] because everything is volunteer, so there might be information that is wrong.*

The teens revealed the sophistication of their computer use in other ways as well. One girl mentioned how important it is to her to be able to use online translation tools, one boy plans on being a computer graphics animator, and all had strong opinions about such things as the best software for downloading music and the fastest, most cost effective services for connecting to the Internet. One boy explained:

> *Comcast is the best. [It's] three times faster than a normal DSL connection.*

Like the adults we spoke with, the teens mentioned how important their home computer is as an alternative to traveling to and "*wasting time*" at the library, where typically there is a wait for using a computer and sessions are limited to 45 minutes.

Not surprisingly, the children in our San Jose focus group, aged 6 to 14 whose families participate in the One Economy program, use their computers in ways similar to children everywhere—for school work, for games, sometimes for music or for chat, and for visiting their favorite websites. They demonstrated their own sophistication, talking casually about burning CDs and conducting online transactions, such as buying movie tickets from Fandango.

Fandango…is my favorite, where I can get whatever movie tickets I want.

Online "kid culture" is a routine part of their lives. When asked about which web pages they like best, all the kids immediately jumped from their seats and raised their hands to tell of four or five pages that are their favorites. With laughter and self-awareness, they talked about being "*addicted*" and suggested that it is tempting for them to spend too much time on computers "*instead of playing and stuff*."

Use of the Internet More Than Other Means of Information Gathering

Along with currently using the Internet for purposes that support program goals, 50% or more of the Miami clients said they would use the Internet the next time they needed information regarding education, immigration, family services, products to purchase, health care, jobs, and housing (see Exhibits 23 and 24). San Jose clients similarly anticipated using their computers to get information, though at somewhat lower rates. Both the exhibits below show anticipated uses of the Internet in comparison to obtaining information by going to an office, calling, or writing a letter.

Exhibit 23. Anticipated use of the Internet in Miami.

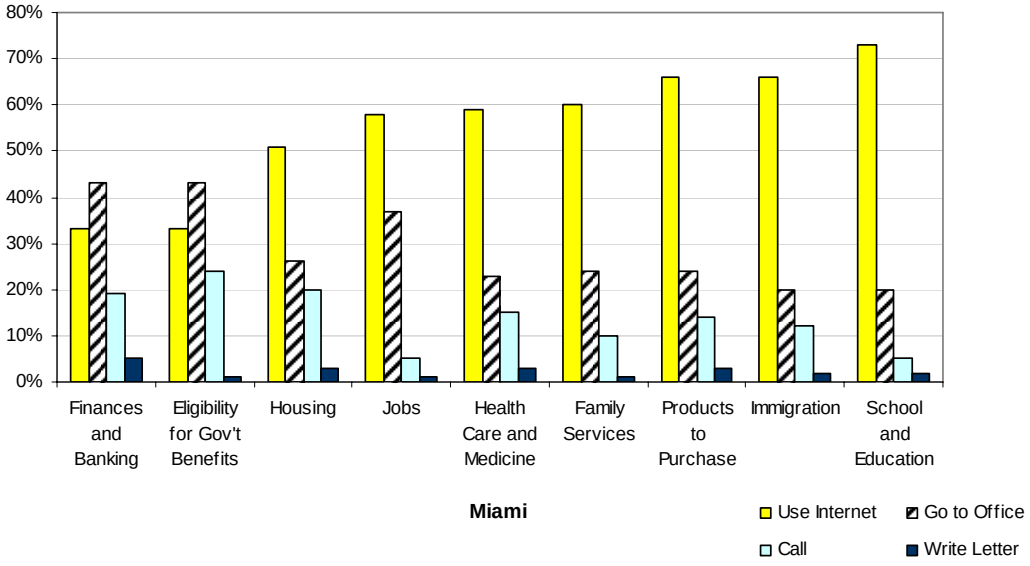
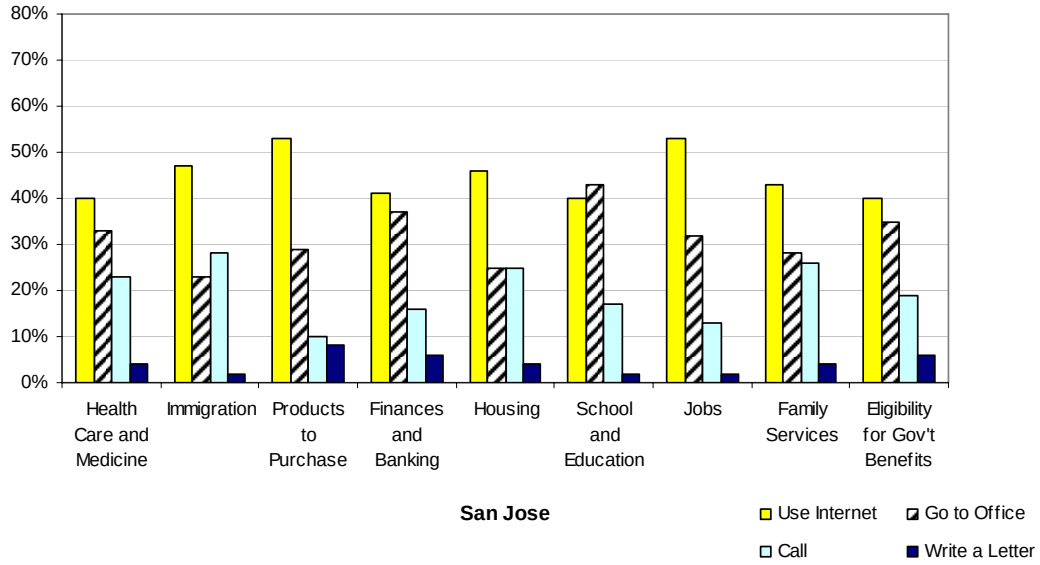


Exhibit 24. Anticipated use of the Internet in San Jose.



In only two categories—finances and banking, and eligibility for government benefits—do we see a preference among Miami clients for face-to-face interactions with information providers. San Jose clients indicate that they seek information in person preferentially over using the Internet only when seeking information about schooling and education. Overwhelmingly, then, One Economy clients see the Internet as the primary resource for critical information in their future lives—with limited exceptions that likely derive from clients' cultural and practical circumstances.

Home Internet Access Strengthens Clients' Community Engagement

Throughout our data there are strong indications that home Internet access supports community engagement for One Economy clients in Miami and San Jose. For example:

- 78% and 72% of Miami and San Jose clients, respectively, report that they use the Internet to search for community events and services;
- 46% and 37% of Miami and San Jose clients, respectively, use the Internet to take part in online groups of which they are members;
- 81% and 64% of Miami and San Jose clients, respectively, report that the Internet has helped them become more connected to family and friends; and
- 77% and 41% of Miami and San Jose clients, respectively, report that the Internet has helped them feel more included in their community.

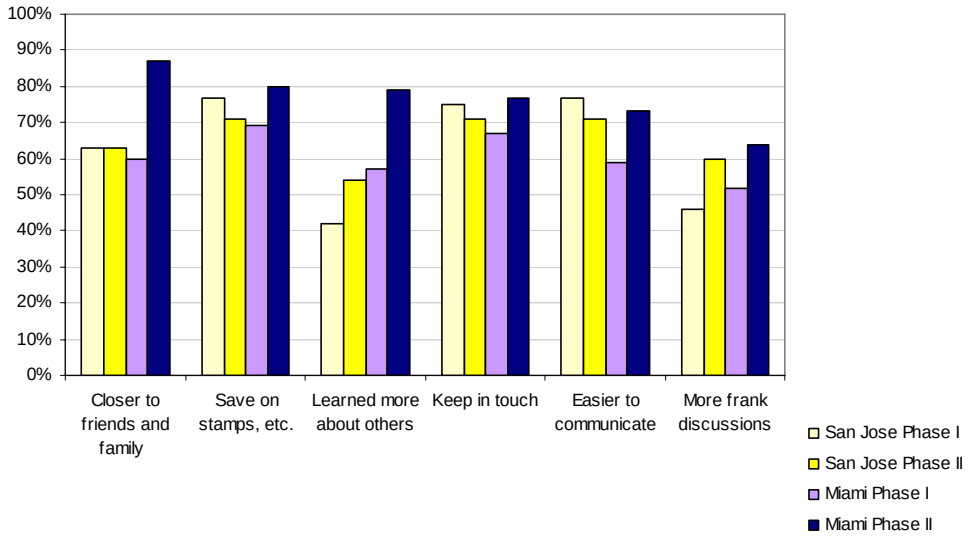
As these findings illustrate, community engagement for Miami and San Jose clients falls into two related categories—(1) interpersonal relationships and (2) activities in public spheres, including community events and groups.

Home Internet access strengthens interpersonal relationships

Clients in both San Jose and Miami report positive impacts on their personal communication and relationships with others (see Exhibit 25). For example, in the Phase II survey, 63% of San Jose clients agree that e-mail has brought them closer to friends and family. In Miami, 87% of clients say the same—a 27% difference from the Phase I response of 60%. Other indicators of positive impact are similarly high:

- Over 70% of clients in both cities during Phase II report that e-mail makes communication easier, less expensive, and more practical when they are otherwise busy. This represents a notably higher percentage of responses for Miami clients than in Phase I.
- During Phase II, 54% of clients in San Jose and 79% of clients in Miami responded that e-mail has helped them learn more about friends and family, again a notably higher response than in Phase I (42% for San Jose and 57% for Miami).

Exhibit 25. Effects of e-mail on relationships in San Jose and Miami from Phase I to Phase II.



Notably, there is indication that e-mail increases the openness of communication for clients. In the Phase II survey, 60% of clients in San Jose and 64% of clients in Miami responded that e-mail makes it easier for them to say frank or unpleasant things than in normal conversation, for both cities a higher percentage of respondents than in Phase I (46% in San Jose and 52% in Miami).

When speaking with clients individually and collectively, one of the most salient features of the conversation is how much the computer facilitates communications. During the Miami focus group, one woman offered:

> *This computer has brought my family closer, because I can communicate with my children in Peru.*

As she said this, everyone present nodded and agreed with her that being able to communicate with family, friends, and associates at a distance is one of the most important uses of the Internet in their lives. Similar sentiments were expressed repeatedly throughout our discussions with clients. As one man said:

> *[It is lonely] when you don't have any family around. The computer is a machine that brings us closer to our family.*

Clients also spoke of becoming more connected through the Internet to people who live nearby and whom they see often. The Internet provides a quick and easy way of communicating that more people are taking advantage of, and, as one client put it, "*taking for granted*." She explains:

> *People now talk about the "Internet" [and] "web pages," and say things like "I'll write you," knowing that it's e-mail.*

She continues saying that because of the Digital Communities program, "*people are less obsolete around here.*"

Corroborating the idea that clients feel the Internet strengthens personal ties, 76% of clients in San Jose and 87% in Miami report having encouraged friends or family to buy their own computers. While this finding suggests that participants would like others share in the benefits they find from having Internet access, it also is potentially indicative of the sense clients have expressed that they are part of a community—both local and widely distributed—in which terms like "Internet" and "web pages" have practical significance. A dramatic illustration of how computers help clients build community and connect with others is provided in Exhibit 26.

Exhibit 26. Client story: A life wholly changed by access to the Internet.

"It's a little dream come true."

*Rosa took the first turn as our interview was starting: "*Before you start asking me questions, I just want to say that I am tremendously thankful for having this computer.*" Rosa began losing her eyesight three years ago, becoming progressively more depressed as the disability increasingly changed her life. As she stated it, she felt like she had lost her "*reason to live.*" Soon after she applied, One Economy provided her with a computer adapted for the visually impaired. "*The computer is my new eyes,*" she told us, sharing that she spends hours a day online. Although she cannot read normal letters, the large font on her computer allows her to read e-mail from loved ones. She also shows wonder and amazement in being able to "visit" and see places that she had never thought of, like Egypt and Morocco. She explains how she has loved seeing these places virtually and how much joy being online brings her. As she explains: "*The Internet is the world at your hands… Besides the TV, the Internet is the most beautiful thing ever created.*" Rosa speaks of the radical change the computer has brought to her life, and how it is her "*dream come true.*"

The Internet supports engagement in public activities

As noted above, most One Economy clients in Miami and San Jose use the Internet to gather information about community events and services, and also report they feel more included in their community as a result of the Internet. Compared to the national sample from Pew where 37% report feeling included in their communities because of the Internet, 71% of One Economy clients in Miami report the same impact. San Jose results (at 44%) are not significantly different from the national Pew sample.

Exhibit 27. Improved connections within the community.

Outcomes of Internet Use	Pew National Sample (n = 305)	One Economy	
		San Jose	Miami
Improve connection with community	37%	44% (n= 43)	71%** (n=45)

*** Indicates difference from Pew National sample at p <.01.*

Looking at our quantitative data on group membership, we see that roughly 40% of San Jose clients report belonging to community, school, and religious organizations. In Phase II, 71% of Miami clients report belonging to community organizations, and 49% belong to school organizations. We also see that in Phase II, clients are reporting notably higher levels than in Phase I of involvement in business, labor, and political groups in San Jose. The rates for involvement in these groups in Miami are higher in Phase II as well.

Exhibit 28: Group membership for San Jose clients.

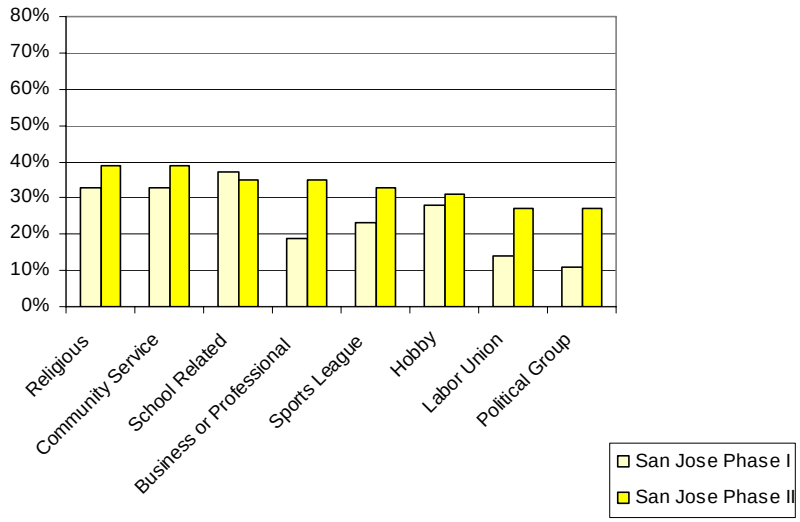
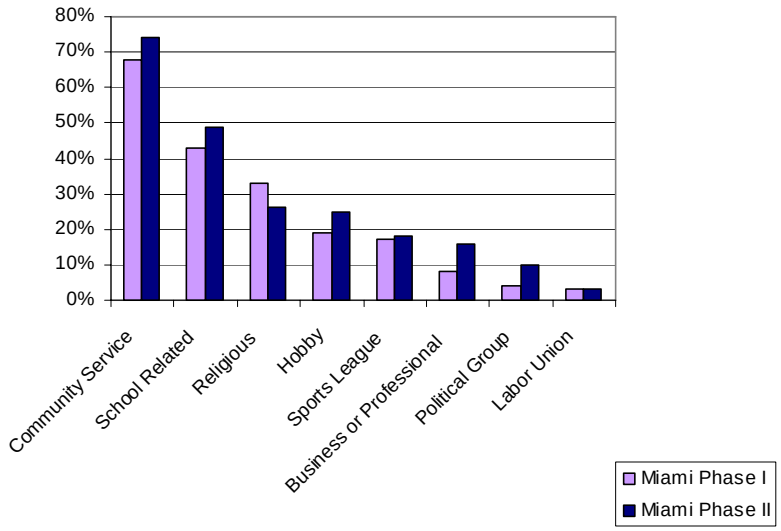


Exhibit 29: Group membership for Miami clients.



Some clients have indicated that communicating with others using the Internet has developed into active engagement with the public institutions of their community. Most notably, for some clients the Miami Beehive has "*empowered*" the people and provides the basis for parents "*to advocate*" on behalf of their families. Three people in our qualitative sample noted that they use their Internet access to engage in community service and activism as a regular part of their lives.

In one case in particular, the One Economy computer is being used for political purposes—specifically to support the Ethiopian opposition. This client explains that now that his son, a Digital Connector, has installed Amharic software (the language of Ethiopia) on their computer, he develops content for weekly web broadcasts in this language. In talking about what he values most about his computer, he says:

> *Every one should be the ambassador for their country.*

The efforts of this man to lobby for the interests of his political group extend to communication with congressional representatives from California as well as other governmental officials.

Summary

One Economy clients are using their home Internet connections for a range of activities that support key program goals and are meaningful in clients' lives. Using the Internet has had a positive effect for most clients on schoolwork, job performance, health care, and feelings of connectedness to others and their communities. Many clients also report an effect on job searches and management of finances. Both San Jose and Miami clients anticipate using the Internet as the primary resource for information gathering for such topics as jobs, health care, immigration, product research, family services, and housing.

Throughout our data there are strong indications that home Internet access supports community engagement for One Economy clients in Miami and San Jose. The majority of clients report that e-mail brings them closer to family and friends, making communication more affordable, more practical, and more open and frank. In addition to supporting personal relationships, Internet access also strengthens clients' engagement in public activities, including participation in political and civic groups.

Supports and Challenges

One purpose of an evaluation is to shed light on some of the programmatic factors that do—or do not—advance program goals. Here we discuss three interrelated factors and their effects on individual and collective capacity to effectively use digital technology: learning computer skills, managing technical difficulties, and leveraging the effects of physical proximity of clients.

These factors bear directly on the first three hypotheses underlying the evaluation:

H_1 *Having a computer and Internet access at home* enables low-income families to access information that is relevant to their lives.

H_2 Having a computer and Internet access will help clients *take steps towards*:

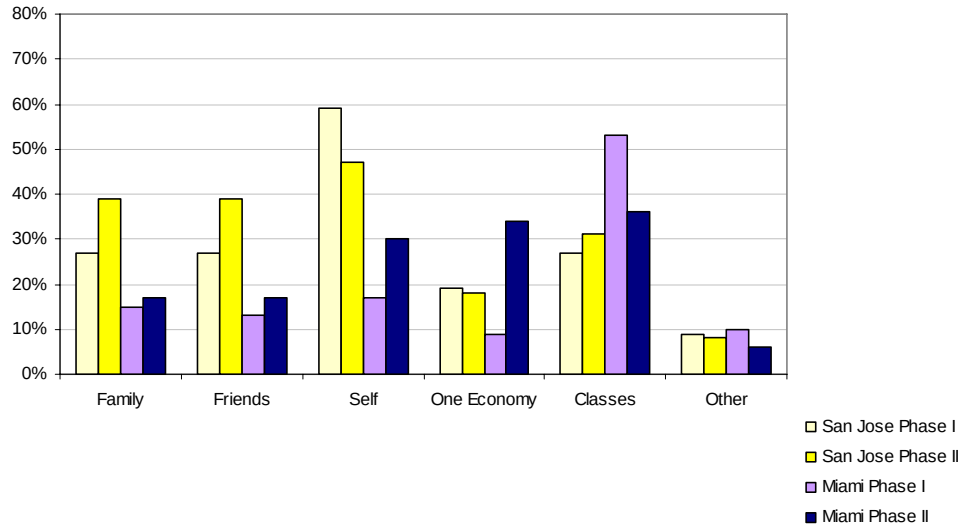
- Pursuing better jobs
- Accessing financial services
- Obtaining health care
- Advancing their education

H_3 Having Internet access will strengthen *clients' engagement in the community*.

Clients' Draw on Multiple Sources of Support for Learning

When San Jose clients were asked how they learned to use computers, most reported in Phase I that they learned by themselves (59%), with some reporting that they relied on assistance from family and friends (27%; see Exhibit 30). San Jose clients responding to the survey in Phase II reported lower rates of individual learning (47%), and higher rates of using of family and friends as learning resources (39%) in comparison to respondents in Phase I. The Miami clients responding to the survey in each Phase were more consistent in their use of resources, reporting learning about using computers from classes or computer centers (36%), from One Economy assistance (34%), and on their own (30%). In general, the Miami group tended to use more external and formalized sources of assistance than the San Jose clients.

Exhibit 30. Learning to use the computer from Phase I to Phase II.



The two sites present different patterns for learning computer skills. Survey and qualitative data suggest that San Jose clients have established more of an informal community of support for learning computer skills. One San Jose client stated:

> *We have very good neighbors. I can tell my neighbors, oh, can you help me out and they are very open and very accessible to help out. They pretty much never say no I can't, they're always willing to help you or teach you new things, [like] how do I do this.*

In our observations of clients' interactions in San Jose, the willingness and ease with which clients sought help from one another was apparent. Although we observed similar types of client interactions in Miami (discussed further below), Miami clients, as the survey data indicate, relied more on explicit instruction for learning computer skills.

For five or so of the Miami clients with whom we spoke, lack of opportunity to take computer classes presented a problem. When we asked one man if he was using his computer, he answered that he had "*used it a little bit, but then [he] stopped*." He told us that he had taken the initial training and the follow-up Beehive trainings, but added "*Now I am at zero*." He explained as follows:

> *I forgot everything I learned, because I did not practice, and with this thing, if you don't practice, you forget.*

The main problem for him, he further explains, is that he needs to take computer classes, but there are none in Spanish that match his work schedule.

Although, as we noted above, providing extensive training has not been within One Economy's services, according to some Miami clients, the issue of sufficient opportunities to learn gets at the heart of the program's impact. When asked directly during the Miami

focus group if people felt the program was achieving its goals, after saying how much she loved the program, one woman, Marisol,[15] offered the following analogy:

> *It is like giving out free cars to people that do not know how to drive…it is better for them to put the car on the shoulders and carry it to places [rather than drive it].*

Marisol's comment prompted extensive discussion regarding the value of offering more computer classes in their community. An elderly gentleman said that he still needed a basic class to be able to start using his computer. The man who felt he was "*at zero*" with his computer skills also spoke up. After hearing several people describe what they needed, Marisol concluded that there should be classes cycling at three levels—basic, intermediate and advanced—because "*that way people can catch up if they are behind, and move forward*" if they are ready.

The relationship between learning and the core program goals becomes clearer through the eyes of another focus group participant who extended Marisol's initial analogy about learning to drive. Invoking the notion of proving one's competence before getting a driver's license, she says:

> *I think that the program should not give the computer to people that do not know how to use it. The program should make sure that they take a basic computer class before they get the computer.*

Her concern is that although there are many people in the program who are truly benefiting, there are also many people who are not using their computers, depriving others from having one. In the worst cases, because they do not know how to use it, "*these people end up selling the computer*." At its essence, for these participants, adequate support for learning how to use a computer is integral to the meaning and success of the program.[16]

The discussion among focus group participants reflects one portion of the landscape of learning resources available for developing computer skills. The general resources clients have for learning how to use their computers fall roughly into three basic categories: formal instruction (e.g., computer classes), informal instruction (pointers from staff, friends, and family), and implicit learning (hands-on, imitative, and other forms of learning which are largely unconscious and embedded in ongoing activity that is not marked as educational or instructional). All three of these types of learning are important for development of technological literacy and fluency. Furthermore, the more types of learning resources available, the more likely there will be appropriate learning opportunities at times when people want or need them, and the more likely it is that people will learn (DiMaggio & Hargittai, 2001). In addition to shifting economic and social relations, digital technologies have affected how people learn, including how people learn

[16] It is interesting to note that this suggestion that One Economy require proof of training met with opposition; clients who are still struggling to learn but nonetheless getting value out of their computers, such as communicating with their families abroad, say that any such prerequisites would have excluded them.

about digital technologies (Bolt & Crawford, 2000; Gee, 2003; Roschelle, Pea, Hoadley, Gordin, & Means, 2001).

Interestingly, the clients with whom we spoke in both San Jose and Miami did not all develop their abilities in the sequence traditionally taught—for example, by learning about how their computers operate, about how to save files, and about Word and the Microsoft Office suite before moving to navigating the Web, getting an e-mail account, and, perhaps only then, learning to scan a photo. Although some have yet to learn to use Microsoft Word to create a document, save the file, and print it, they are already using programs that allow for audio streaming or visual interaction using webcams to chat with family members in their home countries. They are downloading music and videos, in some cases, before they are ready to conduct an online transaction. Each client we spoke with has his or her highest priority uses, and each adds new uses in different ways. The traditional computer skills curriculum, then, may not necessarily be the most appropriate method for One Economy clients to learn how to use their computers.

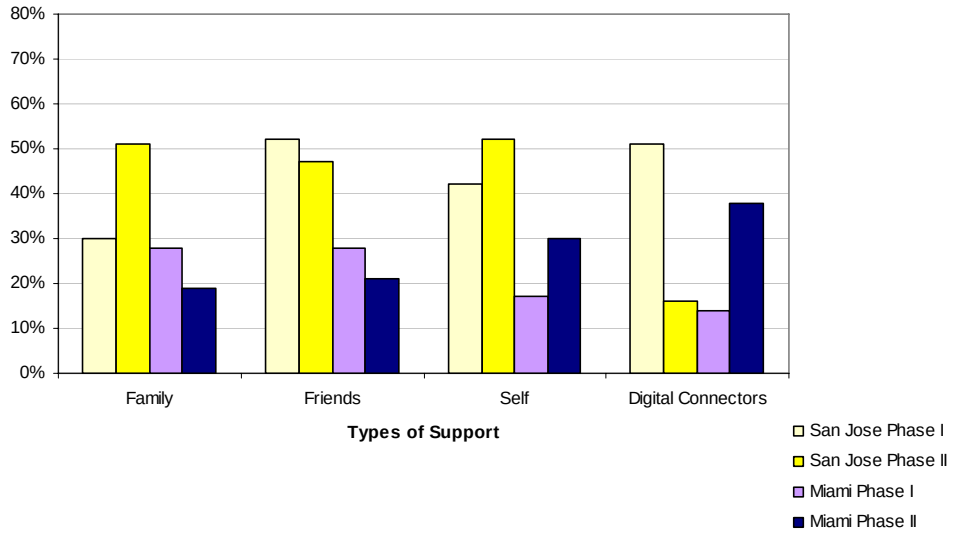
Yet, it is important to remember that not all clients are learning what they need to know. Across both sites, we note that there are many people, primarily older users, who find themselves at a loss as to how to garner the resources they need to learn the next set of skills, whether they are the most basic skills or slightly more advanced. As suggested previously, issues of use and issues of learning are intimately connected, and there are clearly points at which many of One Economy clients find themselves stuck because of an insufficient infrastructure for learning. In some cases, lack of appropriate resources to overcome challenges for developing skills might be making a significant difference in program participation, particularly for older users.

Clients Overcome Most Technical Difficulties, Yet Some Require Basic Troubleshooting Skills

The patterns of how clients solve technical problems in each of the two cities parallel their patterns of learning computer skills. In Phase I, 42% of San Jose clients reported fixing technical difficulties on their own. In Phase II, 52% of clients reported doing so. In addition to a higher rate of reliance on themselves and family members (51%), only about one-third of San Jose clients turned to Digital Connectors in Phase II (16%), a substantial difference between the two survey administrations.

In Phase I, Miami clients reported that they responded to computer breakdowns most frequently by asking family (28%), friends (28%), or the Digital Connectors (14%) for help. In Phase II, clients reported they *less* frequently asked family (19%) and friends (21%), and *more* frequently called Digital Connectors for assistance (38%) than in Phase I.

Exhibit 31. Types of computer support in San Jose and Miami.



By and large, clients report few real technical problems with their computers. The machines themselves seem to be reliable. When they did need technical support, most everyone we spoke with said they readily availed themselves of the services of the Digital Connectors, the program staff in Miami, and others in the community (such as family or the computer lab coordinators in San Jose) whom they felt could help.[17]

However, it is clear that a notable challenge participants face when their computers are not working is knowing the source of the problem. In many instances, particularly among elderly or novice users, their computers do not "work" because they need settings adjusted—such as those for receiving or sending e-mail—or require more proficient skills. Rather than technical problems per se (requiring an expert for correction), these problems are problems of learning. For clients for whom the nature of their computing problems is opaque, there is evidently a need to learn to operate a computer at a basic level and in order to be able to handle routine use issues.

> *I'm grateful to have a computer, but at the same time I'm frustrated because it kind of freezes in the middle of something I'm doing. I'm not good with the computer or Internet. I don't know what's happening but sometimes it flashes yellow and white. I'm like, what's going on? I don't know, and I'm not about to go in and move anything because I might break it.*

Technical issues that do arise can be discouraging for some users. After a period of connectivity problems with the wireless system in San Jose, one elderly client said she had stopped checking her e-mail because, she explained:

> *I don't want to look and check when it's not working…it's too much trouble.*

[17] The structure of the program in San Jose differs from Miami in that One Economy staff do not work with clients directly.

Furthermore, she indicated that she was confused about the source of the problem; it was difficult for her to know if she should ask for help with her own computer or whether she should just wait for the wireless system to be up again. Another client in San Jose recounted that his boss had asked him to e-mail time-sensitive information to a high-level company official. However, despite having thought he sent the e-mail, it never went through, though he was unclear whether this was because of wireless access problems at the housing site or because of his novice understanding of how the system works. He felt that his failure put him in a poor light at work and added:

> *I told [my boss] to, please, never ask me to do this thing again.*

His concern was that by attempting to perform such tasks he risked failure and he does not want to look unreliable.

Effects of Proximity

Within a housing community, where people live in close proximity, there are always potential opportunities for people to share information and support each other in using digital technologies. We observed clients in the same housing site sharing software, listened to them speak about their "*good neighbors,*" and documented their offers to help one another. During our final interviews in San Jose, for example, one participant offered to help another solve a problem with getting online. In a similar vein, after the adult focus group in Miami, there was a flood of ideas exchanged: one woman told a male participant where he could get video tapes in Spanish at the library to learn new computer skills. Two other participants discussed together how to pay bills online. The simple event of a gathering to talk about their experiences in the program precipitated a great deal of sharing and learning.

Clients have described their experiences within a community of users as follows:

> *I can tell my neighbors, oh, can you help me out and they are very open and very accessible to help out.*

> *I asked my neighbor…she helped me.*

The effects of proximity that benefit One Economy clients comes from more than just other members of the Digital Communities program. Nearly every middle-aged or elderly client we spoke with talked about children, grandchildren, and other relatives who live elsewhere but use One Economy computers while they visit. They explain:

> *When my daughter-in-law comes, I can ask her to help me…She found airline tickets for me once.*

> *My son sets everything up for me [when he comes] so I can read the news.*

In addition to helping the One Economy client, the visiting relatives are benefiting, too: the home computer allows the visitors to check their e-mail, conduct business, complete chores, and pursue personal entertainment without interruption of their normal lifestyles. While we were interviewing one man who is close to retirement age, his visiting daughter-

in-law and young grandson were using his One Economy computer the whole time, while his son worked on a laptop he had brought on the visit.

The significance of proximity to other users—and, consequently, the value of a program designed to build community around computer use—is one that finds support in academic research. Work led by Karen Mossberger, in particular, shows that when income and education are controlled for, the main predictor in whether or not lower income persons have Internet access is where they live in relation to other users (Mossberger, Tolbert, & Stansbury, 2003). Our observations and interviews are consistent with the conclusion that proximity within the community of users is helping to support One Economy's program goals.

Summary

One Economy clients draw on multiple resources for learning to use their computers and address technical challenges. While many clients have learned new skills and how to solve problems on their own, others rely on One Economy program staff, friends, and family, or more formal training in computer classes. In our interviews and focus groups, clients noted that learning computer skills is a significant matter for some new users, and the program should consider additional monitoring of this issue

The Beehive

Our guiding hypothesis regarding the Beehive is as follows:

H_4 The *Beehive* is a helpful website for participants to access the information they consider relevant to their lives.

We have many sources of evidence that indicate that, in fact, the Beehive is helpful and relevant in clients' lives. Clients in both San Jose and Miami report dramatically different levels of experience using the Beehive between the Phase I and II surveys. The most noteworthy findings regarding the Beehive include:

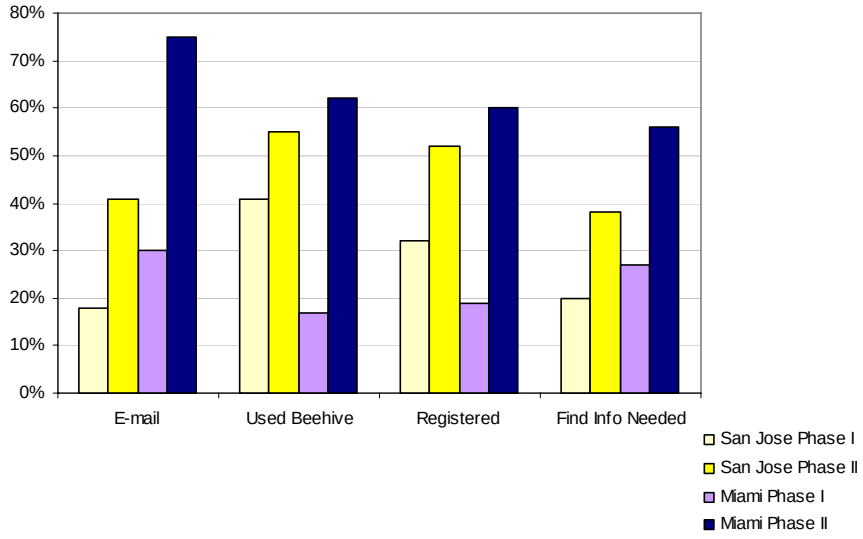
- The substantially higher—in some cases, multifold—use of the site after one year.
- The usefulness of various features of the site.
- The high level of awareness of community resources provided by the Beehive.
- Client judgment that the Beehive is improved from its previous version.
- The variability in clients' knowledge of the site.

Beehive Usage is Much Higher in Phase II at Both Sites

The Phase II survey shows that the majority of clients are visiting and interacting with the Beehive website. The rates in Phase II are substantially higher than in Phase I.

- Use of the Beehive website was 46 percentage points higher in Miami and 14 percentage points higher in San Jose.
- Registration rates increased 45 percentage points in Miami and 23 percentage points in San Jose.
- The number of respondents who reported they could find needed information increased 29 percentage points in Miami and 20 percentage points in San Jose.
- Those with Beehive e-mail rose 40 percentage points in Miami and 17 percentage points in San Jose.

Exhibit 32. San Jose and Miami usage of the Beehive website from Phase 1 to Phase II.

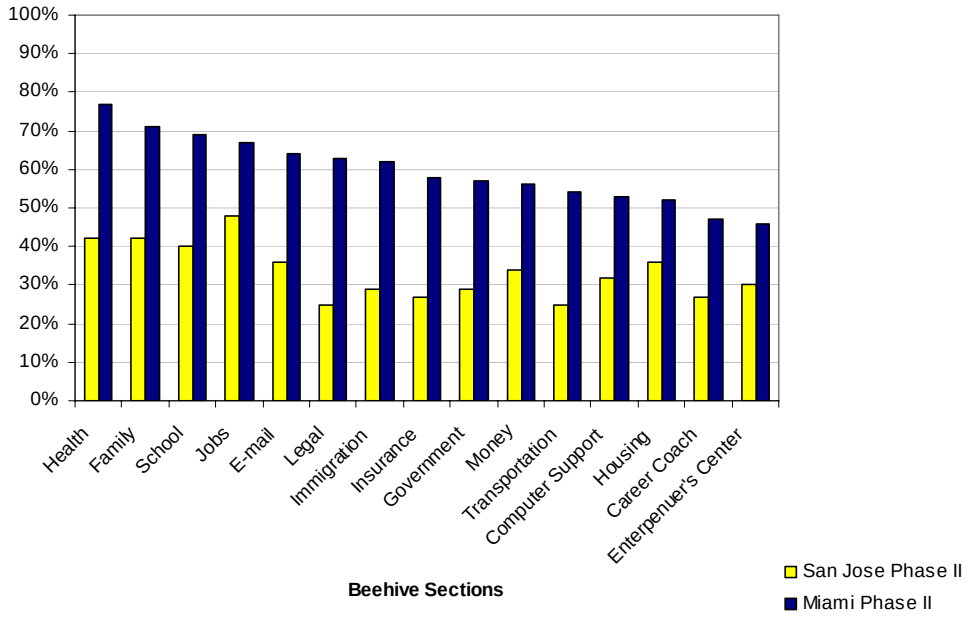


The differences clients report in their use of the Beehive likely reflect the additional Beehive trainings provided to clients in the year between Phase I and Phase II.

Clients Value Certain Sections and Functions of the Beehive More than Others

In the Phase II surveys, San Jose clients rated the jobs, health, family, school, and housing sections of the Beehive to be of most use to them (see Exhibit 33). Miami clients generally agreed, rating the health, family, school, jobs and e-mail sections of the site to be most useful. The ratings of utility, however, were higher for the Miami group overall.

Exhibit 33. Percentage of respondents in San Jose and Miami who found various sections of the Beehive website useful.



Clients' high ratings of the usefulness of the health section might reflect the low number of clients who have health insurance or regular access to medical care and turn to the site for information. The "Family" section of the Beehive, which was also highly rated, includes information and resources for contacting family members overseas, a use for their computers that One Economy clients value a great deal. The international communication features of the "Family" section were also heavily promoted during the Miami Beehive training.

Participants in our interviews and focus groups described valuing specific features of the Beehive. For example, one Beehive user said that she loved the video on how to withdraw money from an ATM machine and "*watched it many times*." Another Beehive user spoke of the value of the Beehive for parents, "*because they can find information on how to help their kids in school*." This participant felt the information can help parents "*commit more*" to their children's education—something she noted is needed in the community.

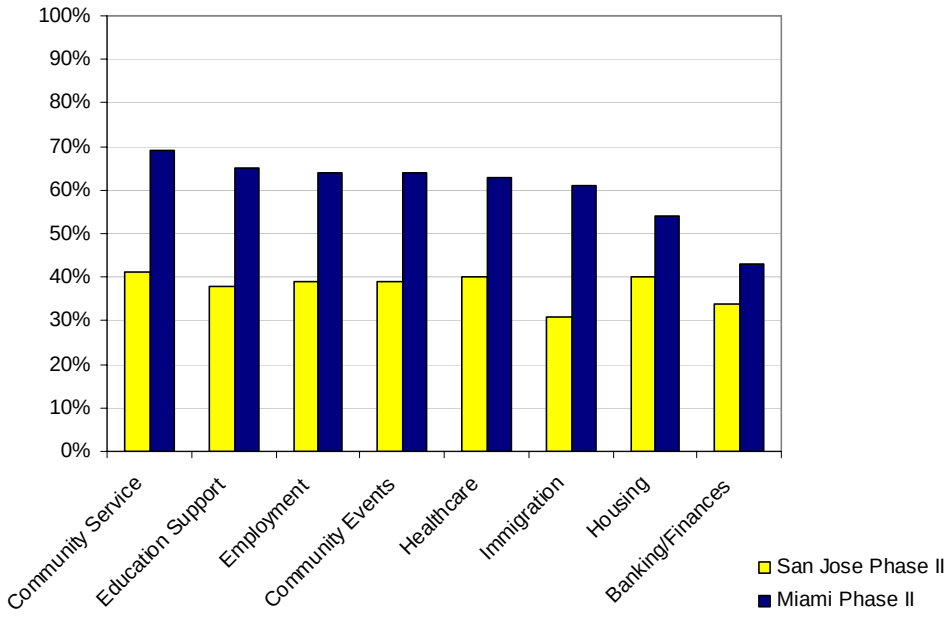
The Beehive Connects People to Local Resources

As a result of visiting the Beehive website, San Jose and Miami clients reported that they are more likely to know about and use a broad range of resources in their community (see Exhibit 34). The most frequently mentioned community resources among San Jose and Miami clients included:

- Community services (41% San Jose and 69% Miami)
- Health care services (40% San Jose and 63% Miami)

- Employment services (39% San Jose and 64% Miami)
- Community events (39% San Jose and 64% Miami)
- Education support (38% San Jose and 65% Miami)

Exhibit 34. San Jose and Miami awareness of community resources.



While clients in both cities report being able to learn about their local communities from the Beehive, Miami clients seem to benefit the most from this feature of the website.

Sufficiency of Information on the Beehive

Clients in San Jose and Miami had different responses regarding whether to add more information to the Beehive. In San Jose, the number of people who felt the information on the Beehive was sufficient and did not need more information rose from 18% to 45% over the course of a year in the program (a difference of 27%). In Miami, however, there was an interest in seeing more information on the site; the number of clients saying they felt the information on the Beehive was sufficient declined and those saying they would like to see more information on the site grew from 12 to 28% in this time frame.

During the adult focus group in Miami, the four people who knew the Beehive best agreed that the site had been improved a great deal since they first visited it. One client summed up the opinions by saying, "*it's a lot better now, with more and better information*."

Clients Vary in Beehive Knowledge and Use

Despite the increases in Beehive use and many clients' enthusiasm for the site, we also found many indications that Digital Communities members differed greatly with regard to their knowledge and use of the Beehive. One source of evidence comes from our

quantitative data, which shows that across the survey questions relating to the Beehive, the results for Miami are higher than results for San Jose.[18] Importantly, while we do not intend in this report to focus on differences between Miami and San Jose, since each of the cities represents a unique case, considering the differences with some of our findings can potentially help us understand the effect of situational context on program outcomes. In this way, we use the comparisons to frame issues that might be important for program development or for further research. The discussion section below offers some perspectives on the differences between the two communities.

In addition to differences between the sites, we see great variety in personal experience with the Beehive. In the qualitative data, we find that five of the 13 interviewees in the Phase II Miami interviews were dedicated Beehive users—accessing Beemail and other features of the site frequently, if not daily. One of these clients, who reported that she routinely shows the Beehive to her relatives and friends, spoke emphatically about the Beehive:

> *[The Beehive has] empowered the people, especially the youth, of Little Havana.*

Another Miami client, who has started a handbag-making business and expressed some frustration at not being able to "*get the information*" on entrepreneurship she wanted, nonetheless spoke of how much she liked the site, particularly the jobs section. She said that she, "*take[s] Beehive handouts and give[s] them away wherever [she] goes: the hairdresser, talks, gatherings, other places*." Two other Miami clients similarly mentioned introducing others to the Beehive and encouraging them to use it.

Despite One Economy's outreach and the training efforts to support use of the Beehive, two others from the 13 interviewed said that they had not heard of the Beehive. The remaining six said they did not use it. One Miami focus group member explained:

> *Nobody knows the Beehive…they need to print out more flyers, and put them in the library, community centers, go to institutions and give talks, to inform and educate. They could also print adds in free Miami newspapers, or in papers that are here from other countries.*

In San Jose, although they had all heard of the Beehive (there is a large poster for it in the common room at Plaza Maria), none of the interviewees or focus group participants used the Beehive on a regular basis or had visited it more than once or twice, so we did not speak with any dedicated Beehive users in San Jose.

In sum, our quantitative analysis shows that awareness, use, and appreciation of the Beehive have grown a great deal over the past year. Nonetheless, despite its recognized value, our discussions with clients in both cities suggest the possibility that only some become regular Beehive users, taking advantage of its offerings or incorporating it as a daily resource for their lives.

[18] To restate, more Miami clients have registered for the Beehive, used the Beehive, created an e-mail account in the Beehive, and found information they need on the Beehive. Miami clients also rate the usefulness of each section more highly than do the San Jose clients, and indicate at higher rates than San Jose clients that they are aware of local resources because of the Beehive.

Discussion of difference in Beehive use between cities and among clients

As indicated above, we consider the differences between the two cities to help us better understand the conditions in which the program is implemented. Each city becomes an exemplar for some of the ways in which the program might be affected by contextual factors.

One reason, we speculate, that fewer clients in San Jose use the Beehive is that they do not need it as much. Because San Jose clients already use the Internet for various purposes at high rates,[19] it is possible that an integrated portal like the Beehive does not provide direct access to the information these clients most want.

If we take this view, when Miami clients indicate that they would like to see more information on the Beehive site, it is because they are getting a great deal of their primary information there. Perhaps the number of San Jose clients saying that the Beehive does not need more information increased between Phase I and Phase II because these clients do not feel they need more of the type of information it provides.

San Jose clients might, however, be interested in other types of information or resources. One technically savvy user in San Jose said he had visited the site long ago, but did not find it useful. When we mentioned that the site had been improved, he said he would like to visit it to see if there were now any "*good downloads*" or other resources that he might not be able to get elsewhere for free.

Other factors that may be influencing the differences in Beehive use between the two sites is that Miami clients have had more occasion to learn about the Beehive or, put slightly differently, more support for using it. We see in the interview and focus group data that three clients in Miami specifically mentioned that they show the Beehive to others within the community. This phenomenon of community members providing encouragement and support to friends and family may be more pervasive in Miami than just among the clients with whom we spoke, providing a cultural context that promotes Beehive use.

In addition, it is likely that the Miami Beehive is valued more highly because it is in Spanish—providing clients a local Spanish resource where there are likely few comparable alternatives. While the Miami client group consisted exclusively of Spanish speakers, San Jose clients come from varied language backgrounds, and three of the Vietnamese client whom we interviewed had limited English proficiency.

Across individual users, possible reasons why we see such differences in Beehive usage are:

- There still remains a need for more repeat exposure and yet greater awareness.

[19] This is also consistent with findings from the Phase I survey, where a higher percentage of clients in San Jose (72%) than in Miami (59%) report using the Internet before getting their computer and Internet access from One Economy.

- People who had visited the site previously and not found it useful do not know that it has changed. Those we talked with who do use the Beehive stressed that they felt it was markedly improved, but others do not know of this change.
- The functions of the site still could be improved to attract and better meet the needs of users.[20]

Summary

After over one year of participation in One Economy's Digital Communities program, clients reported substantially higher use of the Beehive web site. They rated the various features of the site as useful, and reported high awareness of community resources provided by the Beehive. Clients who use the Beehive web site felt it is improved from its previous version, however, only a portion of the clients' used or were knowledgeable about the site.

[20] We recommend as a possible strategy conducting a scan of websites that low-income people in San Jose use, identifying gaps in their resources, and developing content for the Beehive to fill those gaps.

Conclusions and Recommendations

Our evaluation efforts have produced multiple forms of evidence—including comparisons with the national sample surveyed by Pew—showing the effectiveness of the Digital Communities program towards:

- Providing families with home access to useful and relevant Internet content, that assists them in taking steps toward seeking work, accessing financial services, obtaining health care, advancing education, and improving their standard of living.
- Supporting families to become informed, active citizens and consumers of services and products—helping them feel more connected, feel a greater sense of security, and become more civically engaged.

Based on a comparison to a national study of Internet users conducted by the Pew Internet & American Life Project, our findings show that the One Economy Digital Communities clients we surveyed are using the Internet at rates higher than other low-income Americans, and reporting improved job performance, health outcomes, and community connections.

In addition to showing high rates of online activity, this evaluation provides documentation of the ways One Economy clients have integrated the Internet into their daily patterns of life. This includes regular use of e-mail, as well as other informational, recreational, and transactional purposes. Most clients report the Internet substantially improves the quality of their schoolwork, job performance, ability to care for their families' health, and feelings of connectedness to others and their communities. Clients also report a positive effect on job searches and management of finances.

Throughout our data there are strong indications that home Internet access supports community engagement for One Economy clients. Clients report that they use the Internet to become more connected to family and friends, as well as to reach out and take part in online groups. In addition to supporting personal relationships, our qualitative data reveal that clients use Internet access to strengthen their engagement in public activities, including participation in political and civic organizations.

Our quantitative and qualitative findings also support each of the evaluation hypotheses, indicating that the features of the One Economy Digital Communities program are, by and large, leading to the outcomes that program developers have intended. Despite the caveats we have offered with regard to sampling, the evidence of program success is strong and supported through the multiple methods used in the study.

Nonetheless, we feel it important to note that the Digital Communities program is young, and the experience clients have with the program and digital technologies is, even after a year or so, still quite new. The most important finding, therefore, is that the program offers tremendous promise in that, over time and with the right types of support, the outcomes One Economy envisions can be realized even more fully.

This said, we offer four programmatic recommendations to One Economy to address some of the challenges we have documented:

1. To further develop a strategy for linking clients to learning resources within the community—instructional settings, support groups, or other resources appropriate to the situation.

2. To consider possibilities for increasing community members interactions on an ongoing basis to increase the likelihood of even greater mutual support.

3. To monitor more deliberately the status of clients' computer use and Internet access both to note the nature of problems that arise with maintaining connectivity and to develop additional resources and solutions to address the problems.

4. To consider the strategy of conducting additional in-depth interviews with clients to better assess what clients might most want or need from the Beehive. To consider, also, a scan of websites that low-income people in San Jose use, identifying gaps in their resources, and developing content for the Beehive to fill those gaps.

We additionally recommend that One Economy consider undertaking further evaluation that would:

1. Follow clients for longer periods of time, to document potentially greater impacts of Internet access on their lives.

2. Conduct more in-depth case studies of users in each community to better identify different pathways through which low-income users can benefit from Internet access.

3. Specifically track youth to better understand their home Internet use and needs.

In summary, we offer that overall, given the short time in which the One Economy Digital Communities in San Jose and Miami have been established, clients' needs and program goals are both being met.

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